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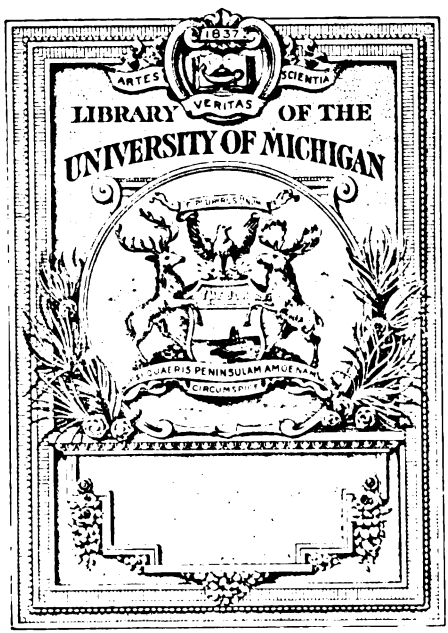
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THE

WESTERN LANCET.

A MONTHLY JOURNAL

DEVOTED TO

Medicine, Surgery and the Collateral Sciences.

VOLUME ONE.

1872.

EDITED BY

EUSTACE TRENOR, A. M., M. D.,

HEMAN P. BABCOCK, M. D.

"Nunquam aliud natura, aliud sapientia dicit."

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1872.

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Medical and Surgical Reporter.
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Philadelphia Medical Times.
Royal London Ophthalmic Hospital Reports.
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DR. BELTON'S CHEILOPLASTIC OPERATION.

THE

PACIFIC LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR JANUARY, 1872.

Surgery.

ART. I.—*Cheiloplastic Operation.* BY W. H. BELTON, A.M., M.D., COLUSA, CAL.

The satisfaction derived from the consciousness of having relieved a serious deformity, is to the surgeon second only to that of having saved life.

The following case is reported, not that it presents anything new or extraordinary, but simply from the fact that, belonging to that most interesting branch, plastic surgery, it must prove of more or less interest to the profession.

O. G., aged sixteen years, was seriously injured seven years ago by the explosion of a flask of gunpowder which he held in his hand. The force of the explosion was so great that it carried away entirely the left thumb, cutting the hand to pieces and terribly lacerating the left side of the face. The mouth also was greatly lacerated, and the cheek literally torn into shreds.

The parts were put together by stitches and plasters by the attending physician, but great sloughing occurred, the stitches gave away, and the patient recovered from the immediate effects of the injury much disfigured about the mouth and cheek.

He applied to me for advice concerning the possibility of relief of the deformity three years ago. At that time he

presented a most hideous appearance. From the angle of the mouth a fissure extended backward in the cheek so as to expose nearly all the teeth on that side. The contraction of the divided orbicularis oris muscle and the lerator muscle of the upper lip and angle of the mouth drew the superior margin of the fissure upward, whilst the muscle acting upon the lower margin brought that still further downward, thus causing an immense opening at the proper angle of the mouth, which it was impossible for him to close. He was unable to drink without allowing a large portion of the fluid taken to escape. He had been annoyed and laughed at by his playmates until he was greatly depressed in spirit, and absolutely presented an object of pity and disgust.

At the first consultation I extracted the second bicusped and first molar teeth, which projected unnaturally, and the ulcerated root of which caused much thickness of the lower jaw. This was done preparatory to the operation for the radical relief of the deformity, which I promised to undertake as soon as the parts should sufficiently recover from the effects of the extraction of the teeth.

The patient then commenced working on a ranch and did not again come under my care until last summer. He presented himself for the operation on the sixth of last June. He was placed in the operating chair, put fully under the influence of chloroform and I commenced the operation, assisted by my partner Dr. Luke Robinson and Dr. H. B. Danson, now of San Francisco.

The edges of the fissure were first carefully and thoroughly pared. The next step was to supply the deficiency of tissue sufficiently to admit of the edges being brought together without too great traction on the parts. To accomplish this, the gliding operation was adopted. That portion of the cheek forming the lower wall of the fissure was separated from the jaw by a subcutaneous dissection extending downward below the jaw to near the hyoid bone. The loosened portion was then glided upward while the upper wall, also first sufficiently separated from the upper jaw, was brought downward and the two were firmly united by five points

of interrupted suture. The silver wire was employed, and great care was taken that the natural relations of the lips should be secured, and that the commissure of the mouth should present a natural appearance. The stitches were supported by narrow strips of adhesive plaster; wet lint was applied and this covered with oil silk. This was the only dressing used during treatment.

Eight days after the operation the stitches were removed, union was found to be complete, the conjunction of the lips natural and the deformity perfectly relieved, only a slight scar remaining of what a few days previously had been a source of inconceivable distress to himself, and of sorrow and embarrassment to his friends.

Colusa, Jan. 7th, 1872.

ART. II.—*On the only Practical Means of Limiting the Spread of Venereal Disease.* BY HEMAN P. BABCOCK, M. D., Oakland, Cal.

In December, 1870, the following paper was read before the Alameda County Medical Association, which body requested it for publication, or that it should be presented to the State Medical Society at its next meeting. For many reasons it was refused at that time, but now that the usual opposition has met the most excellent bill of Dr. Holland, it is thought that this paper, which, on moral grounds, as well as professional, seeks to accomplish a great hygienic good, may be of some assistance in finally obtaining a law which will be practicable, easy in operation and end in limiting if not in removing a physical as well as moral plague.

Currer Bell says in "Shirley": "To such grievances as society cannot readily cure, it usually forbids utterance on pain of its scorn; this scorn being only a sort of tinseled cloak to its deformed weakness."

It has always been noticed that, at every attempt to bring

this subject under legal cognizance, the moral sense of the community is shocked. We do not believe that there exists, to-day, in any of our legislative bodies a member who has the moral courage to introduce a bill to put into execution a measure which, in other countries, has been proven to be of the greatest service, unless he should do it on the recommendation of some medical society. Even then he would oppose its adoption on "moral grounds," to save his credit with that portion of his constituency who affect to believe that pollution is sure to follow any effort at rescuing suffering humanity from the effects of its own sin.

The subject is an old one and has been ably argued, in time past, by medical men; but having recently seen the beneficial results of a practical enforcing of sanitary laws, and considering that the public mind is better prepared now than it was in 1858, when Dr. Sanger published his able Review on Prostitution,* it has occurred to the writer that a re-opening of the question may be of service. None know as well as medical men how universal is the evil, how widespread and lasting its results. They know that it is on the increase, and it is for them as guardians of the public health to take the initiative for its correction, inasmuch as it is equally their duty to prevent and cure disease. If to accomplish this it becomes necessary to demand the enforcement of existing laws, or procure the enactment of more stringent ones, it is for them to do it. Experience has proven that our existing laws are entirely inadequate to accomplish the desired effect, whether from want of stringency, insufficiency, failure to execute them—or all combined. We shall attempt to prove, in this paper, that the most sure and expeditious means of first limiting, then preventing, the spread of venereal disease, is by invoking the aid of the law to place violations of the seventh on the same legal basis as that of the other commandments, and to apply to the disease, necessarily resulting from infractions of this law, the same hygienic measures that we would to the plague or other epidemic destroying our

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*_The History of Prostitution_: W. W. Sanger, M. D. New York: Harper & Bros.; 1858; pp. 685.

population more speedily, it is true, yet not more surely. Dr. Sanger says: * "There is an ever-present physical danger, so fatally destructive that the world would recoil, as from the sting of a serpent, could they but appreciate its malignity; a malignity which is daily and hourly threatening every man, woman and child in the community; which for hundreds of years has been slowly but steadily making its way onward, leaving a track marked with broken hopes, ruined frames, and sad recollections of stricken friends; and which now, in the full force of an impetus acquired and aggravated by concealment, almost defies opposition." He gives, for illustration, the result of an inspection of the books of the public institutions in New York, in 1857,† in which he found that about 10,000 cases of venereal were entered for treatment, not counting those cases where the venereal was considered secondary to other complaints. On considering the latter as two thirds of the former, he makes the lowest estimate for the public hospitals alone at about 15,000, and estimating the private cases under treatment in the city as only quadruple the above—a very low estimate —the aggregate reaches over 60,000 cases! If each person suffered but one attack each year, this would represent about *one sixth* of the total population over fifteen years of age!

Now, in order to reach the effects we must attack the cause. No matter what may be our duties as citizens, our *professional* duty is only to touch the cause enough to remove the effects and here we have only to deal with prostitution as far as it bears on disease. It is not our business to inquire if the necessity for our presence with a patient arises from moral or immoral causes, excepting in so far as is required for a correct diagnosis and treatment—so in this paper we will only refer to prostitution as it bears on the disease under consideration, and, if to eradicate the one, we crowd hard on the other, we may hope that the over sensitive community will not be as deeply aggrieved

*Op. cit., page 18.

†Op. cit., page 593, 594, 595, 596.

as if we only reached the physical, leaving to them the moral question.

To define our reasons for the plan to be proposed, we submit as axioms:

First—That we must deal with populations as we find them, and that closing our eyes to an evil does not eradicate it or prevent its results.

Second—That all human law is founded on the Decalogue, and that while no one commandment is more binding than another—(for we are told that "whosoever shall keep the whole law and yet offend in one point, he is guilty of all,") yet that the violations of some of the commandments has a more immediately serious effect on society at large than the violation of others.

Third—That while the world lasts and mankind is constituted as at present, prohibitory human laws are worthless, and that promiscuous copulation will be indulged in; as a necessary attendant upon which we have a peculiar disease which, becoming constitutional, is visited "on the children unto the third and fourth generations."

Fourth—That this disease, produced by actual contact, is eminently contagious; hence the necessity for hygienic measures to limit its spread, the same as has been proven by experience to be required when any disease propagated, either by unknown causes or want of observance of physical laws, desolates a community.

Fifth—The enforcement of obedience to human law is obtained, either by licensing—thus placing it under bond; by pecuniary fines; and by imprisonment, isolation or quarantines—in this case synonymous terms.

Now we claim that the surest way of enforcing obedience to the seventh command in the Decalogue, in its broadest sense, and preventing the evils that are known to follow its violation, is by the adoption of just the same measures as are in vogue in the case of violations of the other commands, in their broadest sense—namely, fine and quarantine.

Human law fines and quarantines for idolatry, profanity, violation of the Sabbath, abuse of parents, murder, theft,

perjury, and *practical* coveting in all of their modifications; but human law, sustained by "Society," does virtually nothing to punish infractions of the commandment under consideration. A man roams with impunity over the fair fields of his neighbor, but murders, at sight, the poacher on his own property. The law tries him; a jury find him "not guilty," and "Society" says "righteous judgment;" or he is insulted by an acquittal on the grounds of *insanity;* yet, strange to say, "Society" does not consider it an insult to be deemed crazy for doing what "Society" considers a duty! On the principle that "it takes two to make a bargain," the law now separates the woman from her husband; "society" assists by debarring her from all hope of reform, and the two together generally succeed in forcing her to prostitution with its inevitable result. Occasionally a man is captured for a seduction, and made to marry his victim, only to abandon her to a worse fate. The secondary result of these infractions of the law, is disease; disease which spreads in more than geometrical ratio and is generally incurable. We have plenty of laws on the "dead-letter" book, and they had better remain there, being totally impracticable, for they all *prohibit* that which the experience of all ages has proven cannot be prevented, instead of guiding into easily accessible channels, a manageable evil. We cannot prevent our children from playing with edged tools, but we can provide dull ones, that their injuries be not so severe. The law punishes disturbances, noises and personal injuries in grog-shops, bawdy-houses, public assemblies, and on the street, alike; it severely punishes violations of quarantine and laws against the spread of epidemics, but it does not attempt to reach the great crime of spreading a disease more terrible and loathsome than small-pox, yellow-fever, cholera or the plague! The latter may be recovered from—some forms of the former, never. The one afflicts only the present sufferer or his immediate attendants; the other, future generations of human beings, innocent of a cause for their punishment, and whose greatest success in life appears to be to swell the constantly increasing host of recipients of our public charities.

To quote again from Dr. Sanger;* for the sake of example he takes thirty-eight prostitutes to be affected daily in New York. He then supposes one half of the number to have one, and the other half two acts of sexual intercourse daily for six days, from the time the disease is contracted until it becomes manifest. In the course of a year, the enormous total of 138,000 people will have contracted the disease! The majority of them or their descendants will in time come under hospital treatment. Any one, on reflection, can see that his estimate is a low one.

A heavy duty is imposed on the importation of silks and other luxuries to keep our people from sending their money abroad to enrich others at the risk of impoverishing themselves—political economists say, to protect home industry. An almost prohibitive duty is exacted on opium, to keep the masses from degrading themselves to the level of the Chinese. Onerous taxes are levied on tobacco, alcohol and other means of human debasement to make them difficult to obtain, that the poor in pocket and weak in mind—who generally suffer the most from degrading influences, may be kept from temptation, and that, when under its influence or suffering from its effects the State may have the means to support them. Yet no notice is taken of a luxury—the indulgence in which, could figures be obtained (it was computed to cost New York $7,000,000 in 1857!†), would prove to cost the people, pecuniarily, more than any of the above mentioned, and the ultimate effects of which are far more disastrous to themselves, society at large, and to posterity, than all combined! We must attack rich and poor alike. In this as in other respects the latter most suffer, whether from want of money to employ assistance, want of influence to extricate themselves from the hold of the law, or deficiency of mental training to avoid temptation.

Some of the propositions now to be submitted may seem novel and impracticable, but all have stood the test of experience, and are proven valuable. In order to get a legal

*Op. cit., page 676.

†Op. cit., page 598, 599.

hold on the greatest offenders, for these we must commence, and to defray the expenses necessarily attendant on the execution of laws distasteful to all parties, we must, as is done in parallel cases when certain portions of the community are permitted to indulge in occupations, which, if not absolutely hurtful, are, at least, not considered necessary to the support and comfort of life—*license*. Licensing, or bringing under the eye of the law, does not legalize; it only acknowledges the existence of an evil which none can deny, and in this case, like the license on grog-shops, "melodeons," circuses, and other so-called "moral plague spots," it serves to make the article licensed pay for its legal hemming-in, to guard against its spread or prevent its undue indulgence from disturbing society.

Now, to practically carry out the ideas we have advanced, it is claimed:

First—That we must establish a Medical Inspection Bureau, with special hospitals under its supervision, and compel every woman, no matter what her social status, known to indulge in illegitimate intercourse to be enrolled on the police books. The names so obtained to be arranged in classes on the same basis as is done with liquor saloons, theatrical exhibitions, etc., and a license fee, graduated for each class, to be imposed and collected. These fees will pay for the enforcement of the law and support the institutions rendered necessary by the operations of the licensed —instead of having them a State burden, as at present.

Second—Medical examiners to visit, at stated periods and for personal inspection, each person borne on the rolls, and in no case to give a clean bill of health unless such condition actually exists; for each examination, the person examined to pay the examiner a fee established by law, and which shall be his only salary. To guard most effectually against fraud, the examiner to be under heavy bonds; and to secure the greatest competency in the physician, remove his appointment from politicians and place it in the hands of his peers—in the Medical Societies of the section.

Third—Make it a penal offense for any one known to have venereal disease to have sexual intercourse, and permit any

person to compel, by suit-at-law, any other person from whom he or she can prove to have contracted the disease, to bear the expenses of his or her medical treatment, or suffer imprisonment until such fine be paid.

Fourth—On the occurrence of any venereal disease, in the person examined, require a rigid quarantine in hospital, and prevent the going out from there until a sufficient time having elapsed after the cessation of the disease, the person shall be pronounced free from danger of infecting others.

Fifth—Require surgeons of public institutions, to retain under their charge until cured, all persons affected; quarantine officers to refuse liberty on shore, and to send to the hospital, sailors under like circumstances; surgeons of emigrant ships to report all diseased persons for transmission to hospital; all war vessels to be subjected to the restriction of refusing liberty on shore to the crews until after inspection by the surgeon they shall be pronounced clean.

Sixth—Compel the strict enforcement of all the provisions of the law by the heaviest penalties, operating on both officer and subject.

It is not intended to make the hospitals penal institutions, as that would impede the law—rather make them sanitary resorts for the afflicted, and the evasions of their laws penal. It is imprisonment, not fines, that punishes the greater portion of mankind. Most generally a fine reaches the innocent friends of the guilty, while imprisonment punishes alike the rich or poor, be he high or low in the social scale. Therefore it is urged that imprisonment should be the penalty for evading this law.

The advantages claimed for the propositions above announced are hygienic, social and moral:

First—By applying to an eminently contagious disease, remedies known by long experience to be of the greatest value in like cases to prevent contagion, thus benefitting others.

Second—By placing under the most favorable circumstances for cure, the several cases, thus benefitting the individual.

Third—By aiding science in being able to study, under the best auspices, a disease which for years has baffled it.

Fourth—By enabling the law to get a more sure grasp on its violators; making the offenders support the consequences of their deeds, or in other words, making the law pecuniarily self-sustaining, instead of having its expenses defrayed, as at present, by the innocent and guilty alike.

Fifth—By permitting either party to prove the contraction of the disease from the other, it will have a tendency to prevent infractions of the law and cause greater care to be exercised before subjecting one's self to the pecuniary, physical or social consequences of exposure, thus appealing to the strongest motives that actuate all classes of society in avoiding the commission of crime.

Sixth—The law will reach all classes of society, and none know as well as medical men how necessary this is in the disease under consideration.

Seventh—Instead of a "dead-letter" law, worse than none, we will have an active enforcement of humane justice.

Now, is this scheme practical in our country? In 1855 the governors of the New York Almshouse directed the resident physician, Dr. Sanger, to investigate the causes and extent of prostitution, with a view to applying a remedy and relieving the public treasury from an enormous expense. The Doctor published the able and exhaustive treatise to which we have referred, setting forth the universality of the vice, the terrible ravages of syphilis, and suggesting medical-police inspection and supervision as the remedy. He well performed his duty. His public reward was found in the universal *howl* that went up all over the country at the improper nature of the work and its debasing tendency, and the practical result was—*nothing*. The book was ahead of its time. The public could not look on anything so vile and distressing, and closing its eyes, tried thus to abolish the necessity for action!

There has been but one effort made. Lately, in St. Louis, some bold men, with fear and trembling, advanced ideas less radical than these we propose. The usual opposition met them at home, but they carried their point. It is too soon yet to know the result of their humane labors, but two good effects were at once apparent:

First—It caused a stampede of prostitutes from the city, who, by their crowding to other cities, will cause similar measures to be taken for their control and awaken a desire to practically test the value of means employed in the first instance.

Second—The entire religious and a great part of the secular press throughout the country opened an attack on "moral grounds," furiously assailing the attempt on general principles and denouncing its promoters.

No reform works as well as when under great opposition. It attracts the public attention and causes many who, not understanding its principles, think they are opposed to it, to investigate the subject, discover its valuable points, and embracing its doctrines, labor for the conversion of others. When the wonderful discoveries in geology were first announced, showing that our previously formed ideas of time were erroneous, the teaching was denounced as heresy. Did that stop investigation, or prove the heresy? Prof. Agassiz says that every important scientific discovery has to survive three stages:

First—Every one says, "It is impossible."

Second—"It is against the Bible."

Third—"*I* knew it all the time."

So with reforms. These ideas may be impractical and against the religious sense of the community at this time, but they become less so by agitation, and some have proved to us their success in other countries. All honor to the promoters of the St. Louis system, imperfect as it is. It is the entering wedge. We have, in other countries, examples sufficient to prove that laws less rigid than that herein advised, are highly successful. In Belgium* the efficacy of the stringent laws in regard to inspection is seen by the fact that in the year 1855, out of an army, at home, of 30,000 men, there were less than 200 cases of venereal. Dr. Lippert, of Hamburg, says,† in support of the inspection system: "Tertiary syphilis is rare; secondary, but occasional; while primary forms have lost their malignity. The mild-

Op. cit., page 188.

†*Op. cit.*, page 216.

ness of the disease and its easy control can be ascribed to nothing but the weekly medical supervision." In Prussia the system works admirably, and not the least important item in the report* is the credit given to the provision in the law making a person infecting another bear the expenses of the cure in case of identification; if that be impossible, the keeper of the brothel, where the disease was contracted, must do it. The old law of 1792 was repealed by royal edict in 1845, and a prohibitory one enacted. The result was so appalling that in 1849 the prohibition was removed, and since then the disease has decreased. In the cases cited, the penalty for disobedience was imprisonment, not fine.

One instance more. Some years ago the English Parliament passed a "contagious disease act." Lately, some medical men in the colonies discovered that it was practical to apply to the *large* variety what was only intended to apply to the *small*-pox, and the act was rigidly enforced. When the news reached home, the usual "moral" shriek was made, but no official opposition was made. In March and April of 1867, before the discovery that the act would work, the writer visited Cape Town—a place celebrated for the abundance and virulence of its venereal diseases and was informed by medical men there, that the reputation was deserved. In July, 1869, the place was again visited, and the same authorities announced the disease as "about stamped out"! Of course, it existed, but the police had so far control of those subject to it that the officers could pronounce the place as comparatively free. Surgeons of troops in garrison had co-operated, and the beneficial effects of the working of an act not intended to apply to venereal, had established its value. In Singapore and Hongkong, nearly the same results were arrived at, and when one considers the populations of those places; the different nations represented, and the almost impossibility of getting access to the disease, the conviction becomes strong, to say the least, that in our country, with a readier access to the afflicted; a more civilized community to deal with and greater facilities

*Op. cit., page 219: Art. Prussia.

for enforcing obedience to law, we shall be able, not only to render greater assistance to the sufferers, but to limit the spread of the scourge. It is certain that this special millennium will not come until medical men collectively take the initiative. It is for them to set forth the necessity for action; to suggest the most feasible means for accomplishing the end; to procure the draft and passage of laws requisite to carry out means that will meet with great opposition both from society at large and those inconvenienced by their action; to prepare the community, in fact, for such a radical change in rooted opinions.

"Consistency is a jewel"—but "Society" claims to be under no obligation to rescue a man from "the effects of his own sin." How does the principle work? Let a person be injured while violating the Sabbath, sinning against his God by bringing His day in disrepute, and who is *too* Christian to refuse to open his house, receive the sufferer, bind his wounds, relieve his pain and sympathize with him in his misfortune? But let the poor wretch, bearing the loathsome marks of a syphilitic chastisement for a sin against himself and his neighbor, appear for sympathy or charity, and who is Christian *enough* to do more than close the door with a feeling of satisfaction at escaping pollution, and of gratification that the wretch was served aright in being thus punished!

Institutes and Practical Medicine.

ART. III.—*Report of a Case of Albuminuria; with Enlargement and Induration of the Supra-Renal Capsule, unaccompanied with Bronzed Skin, or Melasma. Fatal Result.* BY C. M. BATES, M.D., San Francisco, Cal.

David Thomas, *aet.* 29, laborer, single—admitted to the San Francisco City and County Hospital, August 1st, 1871. Patient states that his health has not been good for the past year. Was in the hospital about a year previously, and after remaining nearly a month, was discharged at his own request. Was treated for syphilis; says he was cured of that disease. Has had occasional swellings of the lower extremities during the past month. Some pain in the lumbar region during the same period; has none now, and no tenderness on pressure. No syphilitic symptoms.

Symptoms on admission.—Œdema of lower extremities; pitting on pressure; abdomen very much enlarged; decided fluctuation on percussion; a very ugly, indolent sore over the hypo-gastric region, produced by the application of a blister to reduce enlargement of abdomen; skin quite dry; countenance puffy and pallid, the whole surface blanched; pulse 80, small and feeble; tongue slightly furred, but red; bowels constipated; no appetite; urine pale in color and scant—about one pint in twenty-four hours; sediment on standing; acid reaction; specific gravity 10–12. A coagulum thrown down by the application of heat and nitric acid, which occupies about one half the bulk of urine in the test tube. Viewed under the microscope it presents the epithelial casts, composed principally of the desquamated epithelium from the convoluted tubes; with some renal epithelium, and a very few crystals of uric acid. There are other casts which have the appearance of coagulated fibrin with but few of the epithelial cells, but those first described

are much more numerous. Slight crepitant rales over both lungs, loudest over left side; dullness on percussion over the lower lobe of each lung, rather more extensive over the left. Considerable dyspnœa, more particularly when in a recumbent posture; heart sounds feeble, but rhythm normal.

I have no doubt that paraceutesis abdominis would have given the most immediate relief, but would it have been the best method of treatment? I think not, and think it should not be resorted to until every other remedy has failed. Accordingly I determined to make an attempt to relieve him by the use of hydragogue cathartics, as diuretics are slower in their action, and are of questionable propriety where we have evidence of so much disease of the renal organs.

August 1st. "*Ordered:* ℞ Potassa Bitart. ʒi; Pulv. Jalap ℈iv; Podophyllin grs. iv; M. ft. chart No. viii; Sig., one powder every six hours."

August 2d. Somewhat more comfortable; had three or four moderately free evacuations of the bowels; no increase of urine. Ordered medicine continued.

August 4th. Has had some eight or ten large liquid stools since last visit and feels much relieved, though abdomen is still very large, but not so hard; no perceptible increase of urine. Ordered one powder every morning.

August 9th. But little, if any, change of symptoms. "Ordered prescription renewed with the addition of grs. vi of Podophyllin instead of grs. iv as in the last prescription. One powder three times a day."

August 11th. Medicine has had a wonderful effect. Patient had some ten or twelve very large liquid discharges in 24 hours with decided relief. Must have discharged three or four gallons of water from the bowels, but no perceptible increase of urine; pulse 76; respiration much relieved; rests well in the recumbent position. Ordered one powder every twenty-four hours; milk diet and beef soup.

August 16th. Patient complains of feeling very weak; abdomen reduced to less than half the size on admission; not much appetite; quantity of urine about the same;

bowels still acting freely. "*Ordered:* ℞ Tinct. Cinchona Comp. ℥ii; Tinct. Calumba, Tinct. Gentian, *aa*℥ss; Ferri et Quiniæ Citras ʒii; Aqua Cinnamomum ℥v; M. Sig., one tablespoonful three times a day; three eggs daily; continue powders."

Sept. 2d. Œdema of extremities entirely gone; abdomen smaller, but still some fluctuation; considerable nausea and vomiting; bowels still moderately free; slight increase of urine. Continue tonic mixtures, stop the powders, and order ℞ Potassa Bitart. ℥ii; Sig., one teaspoonful three times a day. Continue eggs daily, and occasionally as the stomach will bear it, beef, mutton, or chicken soup, with as much of any kind of fresh meat as the patient desires, which is very little; milk *ad libitum.*

Sept. 5th. Complains of very sore throat; tonsils, half-arches, and fauces very much inflamed. "*Ordered:* ℞ Alumina Sulph. ʒii; Tinct. Myrrha, Tinct. Opii *aa*℥ss; Aqua ℥vii. M. Sig., use as a gargle every six hours."

Sept. 10th. Abdomen natural size, no fluctuation; pulse 70, but quite small; tongue clean, smooth, glossy, and of a fire-red color; angina disappeared; considerable nausea and vomiting; bowels very free—almost a constant disposition to go to stool; urine about one quart every twenty-four hours; little or no sediment on standing; specific gravity 10–10; slight coagulum upon the use of heat and nitric acid; about one half as much albumen as at first examination; not so many tube casts as when first examined; more broken down, with epithelial cells; more oil granules. "*Ordered:* Tinct. Opii Camph. ʒiii; Tinct. Kino ʒv; M. Sig., one teaspoonful after every second evacuation. Omit the Potassa Bitart., and continue the diet and tonic. Ordered milk, boiled."

Sept. 12th. Patient more comfortable; vomiting stopped; has been to stool only about once in six hours; appetite better; sleeps well; says he feels like a new man. Discontinued Opium and Kino; continue tonic. Urine about one quart in twenty-four hours.

Sept. 20th. Patient has been doing well up to this date; stools are becoming less frequent and less liquid; abdo-

men increasing slightly in size with slight fluctuation. "*Ordered:* ℞ Elaterium grs. i; Saccharum alb ℈i; M. ft. chart No. iv; Sig., one every two hours." I would have renewed the Potassa, Jalapa, and Podophyllin, had not the patient's stomach rebelled against the medicine. It became so intolerable that he could not bear the sight, much less the taste of it. Continued tonic.

Sept. 25th. Pulse 100, small and feeble; slight nausea and vomiting; bowels have been acting quite freely; tongue fire-red, disposition to coma; quantity of urine about the same; discontinued the tonic. "*Ordered:* ℞ Quinia Sulph. ʒi; Acid Sulph. Arom. ʒii; Spts. Aether Nitric; Tinct. Myrrh. *aa*℥i; Tinct. Gent.; Tinct. Cinch. Comp.; Syrup Simple *aa*℥ii; M. Sig., one tablespoonful three times a day. Continue beef essence, milk and eggs." An occasional powder of Elaterium ordered at bed time to keep the bowels free. There was but little change in symptoms in any respect with a continuance of nausea, etc., up to—

Oct. 17th. Quantity of urine has gradually diminished to about one pint in twenty-four hours. On application of heat and nitric acid two thirds of the bulk of urine examined assumes a buttermilk appearance. Stools scanty and less frequent; abdomen enlarging. Continued Mixture Quinia Sulph., and ordered Infusion Juniper Berries Oi; Potassa Bitart. ℥ii; M. Sig., to be taken within twenty-four hours. Same diet.

Oct. 22d. Pulse 102, very feeble. Great evacuation of bowels—the Juniper and Potassa producing an *emeto-cathartic* effect; but no effect upon the renal organs. Abdomen reduced to natural size; aside from extreme prostration patient feels quite well. Have insisted for some time on his using stimulants of some kind—wine, ale, porter or lager, but he has strenuously objected, giving as his reason that they are all poisonous to him and invariably injurious; though after long persuasion I succeeded in getting his consent. "*Ordered:* ℞ Vin Album. ℥vi; Sig., to be taken daily." This he divides into three equal parts, taking a raw

egg with each, morning, noon and night. Continued Mixture Quinia; milk and broth.

Nov. 2d. Patient much the same. Wine and egg with an occasional spoonful of milk or beef essence, his stomach retains with relish. Pulse 105, same volume; bowels keep up moderately vigorous action; no perceptible accumulation of liquid in abdomen; there is an evident vicarious attempt of nature to eliminate the poison (urea) from the blood by keeping up a constant discharge from the stomach and bowels *(emesis and catharsis)* with but little or no assistance. There is a strong disposition to coma from the poisonous effect of the urea upon the brain. Patient extremely prostrated, notwithstanding all the food he is able to take. "*Ordered:* Sherry ℥viii; Eggs vi; Boiled Milk Oiii; Essence of Beef *ad libitum.*" Continued Mixture Quinia Sulph. Stop Elaterium.

Nov. 10th. Complains very much of *palpebral conjunctivitis*, for which ordered: "℞ Zinci Sulph. grs. ii; Morphia Sulph. grs. i; Aqua Rosæ ℥i; M. Sig., one drop in each eye three times a day." Other symptoms about the same; no perceptible change. A great struggle is going on between nature on the one hand and disease on the other, but it is merely a matter of time. It is but too evident that so much destruction has taken place in the delicate renal organs that nature with our feeble assistance cannot remedy it.

Nov. 16th. Bowels less active; kidneys the same; liquid rapidly accumulating in abdomen; nature unable to keep up the struggle. "*Order* Elaterium grs. iii; Pulv. Gamboga ℈ss; Ol. Tiglii gtts. iii; Saponis Q. S.; M. ft. pil no. xii. Sig. One every six hours until bowels move freely. Continued food and tonic."

Nov. 22d. Patient feels much relieved from the effect of pills; took only two; they had the desired effect; considerable pain at times in the back; had very great pain in the stomach before and after taking pills. "*Ordered:* ℞ Morphia Sulph. grs. ii; Aqua Menth. Pip.; Syrup Simple *aa*℥i; M. Sig. Dessert-spoonful every two hours." Urine very sensitive to heat and nitric acid; albumen two thirds the whole bulk of urine tested; the casts as seen

under the microscope are more broken down or disintegrated, with more oil granules in proportion than when last examined, and more broken down epithelial cells. Very few of the fibrinous casts are seen, and no crystals of uric acid. The urine seems quite thick with disintegrated epithelium, oil granules, and some few epithelial cells, the former in much greater abundance. From this date it appeared that the stomach and bowels were capable of eliminating the accumulating liquid as fast as the transudation took place and preventing any great degree of distress from that cause. With wine ℥vi to ℥x; eggs vi; milk, meat extracts daily, and all the tonics, stimulants, and nourishment which he was capable of taking, the system was slowly but surely giving way to the disease. The patient went on in this way without any great degree of suffering, with a daily discharge of urine of about eight ounces, in twenty-four hours, and without complete coma until Dec. 18th, 1871, when he expired.

Autopsy, eighteen hours after death, performed by Messrs. G. B. Kean, Martineaut, and Dr. F. H. Engels. To these gentlemen I am indebted for the following notes:

"Rigor mortis firm; pupils normal; body greatly emaciated. About one quart of serum was found in cavity of peritoneum. Strong adhesion found on left side of thorax between the pulmonary and costal plura. Right lung free; both lungs highly œdematous; clot in right, and liquid blood in left ventricle. Liver adhering very strongly to peritoneum of intestines and diaphragm. The surface presents numerous cicatrices; size normal. Spleen, dark in color and slightly engorged. Kidneys, large, smooth, white variety of Bright's disease. Weight ℥ix. Supra-renal capsules indurated and very much enlarged. Gall bladder full. Stomach and intestines healthy. Bladder partly filled with urine. The brain was not examined." Microscopical examination shows, within urimferous tubules, an accumulation of disentegrated epithelial cells with some granular matter and oil globules. The medullary structure seemed atrophied, and some of the tubes one half their normal size.

Remarks.—This case, thus succinctly reported, proves to

my mind the correctness of the opinion of some pathologists, that the large, smooth, white kidney, is the form of disease when the chronic has been preceded by the acute affection. Also, that we may have an extraordinary amount of disease of the supra-renal capsules without the accompanying bronzed condition of skin, as described by Dr. Thomas Addison, and other pathologists, which is considered by same of them as almost pathognomonic of the disease. Another interesting feature of this case is the pertinacity with which the restorative powers of the system struggled with the disease, throwing off the transuded liquid as fast as it gathered, while the kidneys were able to render little, perhaps no assistance in freeing the blood of its overloaded and poisoned condition from the presence of urea. There was no time during the whole progress of the disease when there was the slightest moisture of the skin, or disposition to perspiration. The mucous membrane of the stomach and bowels acted as a substitute for the renal organs in the elimination of the excrementatious matters of the entire system.

I should like to have reported another case of the acute form of the disease with symptoms as strongly marked as in this case, treated before the class of the Toland Medical College, which was discharged cured; but believing as I do, that this case reported is more instructive and of greater interest to the profession, I have devoted to it all that time and space could afford.

MONTHLY REPORT OF DEATHS IN THE CITY OF SAN FRAN-

By C. M. BATES, M. D., Health Officer. *No. of Deaths*

CAUSE OF DEATH.	Total	AGES.															SEX.	
		Under 1 year	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	Over 100	Unknown	Male	Female
I. ZYMOTIC.																		
Whooping Cough	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
Fever, Enteric or Typhoid	17	..	..	2	3	1	1	5	2	2	1	..	..	..	..	..	..	11	6
Dysentery	9	3	4	..	..	..	..	..	..	1	..	..	1	..	..	..	..	4	5
Diarrhœa	3	1	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	2	1
Pyæmia	3	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	..	3	..
Other diseases of this class	6	2	1	2	..	..	..	..	..	..	1	..	..	..	..	..	..	3	3
II. CONSTITUTIONAL.																			
Cancer Undefined	2	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	1	1
III. TUBERCULAR.																			
Tabes Mesenterica	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Phthisis Pulmonalis	38	..	..	..	2	1	1	11	9	11	1	1	1	..	..	..	..	25	13
Hydrocephalus	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
IV. NERVOUS SYSTEM.																			
Congestion of Brain	4	2	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	3	1
Meningitis	5	1	..	1	..	..	..	1	..	2	..	..	..	..	..	..	..	1	4
Cerebritis	4	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1
Apoplexy	7	..	..	..	..	..	..	1	1	4	1	..	..	..	..	..	..	4	3
Paralysis—general	2	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	2
Convulsions	6	4	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	2
Other diseases of this class	6	..	..	..	..	1	..	1	2	1	..	1	..	..	..	..	..	4	2
V. CIRCULATORY SYSTEM.																			
Aneurism	5	..	..	..	..	..	..	..	2	2	..	..	1	..	..	..	..	5	..
Hypertrophy of the Heart	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..
Valvular Disease of Heart	2	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	1	1
Other diseases of this class	12	3	..	..	..	..	1	1	2	4	..	..	1	..	..	..	..	9	3
VI. RESPIRATORY SYSTEM.																			
Bronchitis	3	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1
Pleurisy	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..
Hydrothorax	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..
Congestion of the Lungs	3	2	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	2	1
Pneumonia	8	2	2	..	..	..	..	..	1	1	1	1	..	..	..	..	..	3	5
Hœmoptysis	2	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	1	1
Other diseases of this class	4	..	1	..	..	..	..	..	1	2	..	..	..	..	..	..	..	4	..
VII. DIGESTIVE SYSTEM.																			
Peritonitis	4	..	..	1	..	..	..	1	1	..	1	..	..	..	..	..	..	2	2
Gastro—Enteritis	8	2	1	..	..	..	1	..	..	2	2	..	..	..	..	..	..	4	4
Hepatitis	3	..	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..	3	..
Hæmatemesis	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Other diseases of this class	3	1	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	2	1
VIII. URINARY SYSTEM.																			
Bright's Disease	2	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	1	1
Other diseases of this class	3	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	2	1
IX. LOCOMOTORY SYSTEM.																			
Morbis Coxarius	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..
X. INTEGUMENTARY SYSTEM.																			
Abscess—Undefined	3	..	..	..	..	..	..	1	1	..	..	1	..	..	..	..	..	..	3
XI. OLD AGE	2	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	2	..
XII. NUTRITION.																			
Atrophy	6	5	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3
Alcoholism	3	..	..	..	..	..	..	2	..	1	..	..	..	..	..	..	..	1	2
Other diseases of this class	10	6	..	..	..	..	1	..	..	..	2	..	..	1	..	..	..	9	1
XIII. ACCIDENTAL	9	..	..	..	2	1	..	3	2	1	..	..	..	..	..	..	..	8	1
XIV. SUICIDE	4	..	..	..	..	..	..	..	3	1	..	..	..	..	..	..	..	4	..
XV. PREMATURE BIRTH	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2
XVI. SYPHILIS	2	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	2	..
XVII. CAUSES UNKNOWN	20	2	..	..	..	1	1	6	..	7	1	3	..	..	..	..	..	16	4
TOTALS	245	45	15	9	7	7	7	37	35	46	20	8	7	2	..	..	..	161	84

CISCO, CALIFORNIA, FOR THE MONTH OF DECEMBER, 1871.

corresponding Month of 1866, 237; 1867, 217; 1868, 501; 1869, 287; 1870, 266.

RACE.			WARD.															NATIVITIES.			
Caucasian	Mongolian	African	1st Ward	2d Ward	3d Ward	4th Ward	5th Ward	6th Ward	7th Ward	8th Ward	9th Ward	10th Ward	11th Ward	12th Ward	Public Institutions	Casualties	Suicides	F'r'gnCo'nr's	Atlantic U. S.	Pacific U. S.	Unascertained
2										1				1						2	
17				1		3			2		1	3	1	1	5			8	5	4	
9			1			1	1			3	1	1	1					2		7	
3												3						2		1	
3													1		2			2		1	
6			1					1				3	1						2	4	
2						1							1					1	1		
1														1						1	
33	4	1				6	3	1	1		2	3	7	3	12			28	6	4	
1									1											1	
4								1				1	2						1	3	
4		1		1		1		1			2							2	1	2	
4			1	1					1				1					1		3	
7					1			2		1		1			2			5	2		
2													1	1				1	1		
6						1			2			1	1	1						6	
5	1							2		1		1			2			5	1		
5				1					1				1		2			4	1		
1															1			1			
2												1			1			2			
11	1					1		1	1	2		2	1	1	3			7	1	3	1
3				1									2							3	
1															1			1			
1													1					1			
3											1				2			1		2	
8				1				1				1	1	3	1			4		4	
2			1					1										1	1		
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4				1		2							1					3		1	
8			1	1		1				1			1		3			3	1	4	
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7	3				1	2			2				2	2	1			4		6	
9																9		5	1	3	
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2															2			1	1		
4	16				1	8		7	1	1		1		1				16	2	2	
218	25	2	6	12	4	29	4	18	16	14	9	27	28	18	47	9	4	129	34	81	1

REMARKS.—This month shows an increase of 7 deaths as compared with last November, and a decrease of 55 from the total for October. This speaks well for the health of our city. The number of deaths for the corresponding month of last year (1870) shows, as will be seen from the caption of the tables that we have had a reduction of 21, and 42 less than the corresponding month of 1869. We have as shown in the table 40 deaths from the entire class of zymotic diseases, while in the month of November we had only 30 deaths from that cause, showing an increase of 10 over the preceding month. Of these deaths 4 resulted from typhoid fever, 5 from dysentery, and 1 fron diarrhœa. Of deaths caused by diseases of the respiratory system we have 22 against 31 for November. Of the additional number of deaths due to this class of diseases in that month 8 were from pneumonia and 1 from pronchitis. There was 1 death less this month than last from tubercular disease. We have to record 20 deaths from unknown causes against 7 for November. This is owing to the fact that our Coroner, who lately came into office, has refused to sign certificates of death except in those cases where he deems it necessary to perform an autopsy. This we regret very much, as it places our mortuary statistics in anything but a satisfactory condition.

ART. IV.—*Cholera in India. Extract from the London Medical Times and Gazette for Dec. 2d,* 1871.

Mr. Cornish, Sanitary Commissioner for Madros, in his recently published "Record of the Progress of Cholera in Southern India in 1870," before considering the phenomena of later epidemics, critically re-examines some of the older data available in regard to the prevalence of the disease in former times. This he considers it necessary to do, in consequence of Dr. Bryden having lately given in his adhesion to the doctrine that cholera movement is due in the main to meteorological influences, and that human intercourse plays but a very secondary part in the distribution of the pestilence. While such views are declared to be formed on the basis of statistical data by one of the most painstaking and

intelligent investigators of modern times, and while directly contrary theories, the result of experience and induction, are held by the great bulk of the profession, both in and out of India, he feels called upon to proceed with caution, and to weigh carefully every real or assumed fact before drawing inferences therefrom. He therefore reproduces in full the report of the epidemic of cholera in the Madras Presidency, in 1818, compiled by Mr. W. Scott, Secretary to the Medical Board—first published in 1822, but now long out of print. This report he considers to be all the more valuable at the present time, because it was compiled, not to illustrate any "theory" of invasion, but to record in a connected form the testimony of the officers of the medical department who had personally witnessed the outbreak of this, the first epidemic invasion of modern times. The history of the epidemic advance of cholera in 1818, as detailed in Scott's narrative, is, he states, in point of fact, the history for all time of the mode in which the Peninsula and Southern India are invaded. There are, of course, minor differences as to the rapidity of movement of and the extent of country covered by cholera, but the main facts are unalterable. * * * * * * * * *

While Mr. Cornish admits that—seasonal and other conditions being favorable to the preservation of the vitality of the contagium of cholera—an epidemic wave from Bengal will spread over unoccupied country, he by no means argues with Dr. Bryden in the cheerless—and, we may add, dangerous—doctrine he has laid down as to the inutility of sanitary precautions in limiting the destructive powers of cholera. This conclusion Mr. Cornish considers to follow logically from the theory of cholera being an "air-borne" miasm. But, he says, when it can be shown that cholera does *not* move against a wind, and that there *is* a direct relation between the movement of wind and the movement of cholera, it will be time enough for sanitarians to fold their hands, and admit the inutility of their efforts to mitigate the horrors of a cholera invasion. Meanwhile, it seems to him that much may be done to abate the evil; and he believes that there is sufficient evidence already accumulated to show that sanitation has diminished mortality from cholera, as from many other diseases. He trusts that the day may not be far distant when a systematic effort to attack and defeat cholera in its endemic home shall be made with every prospect of modifying those periodical invasions of epidemics which now carry terror and dismay and destruction of life over nine tenths of the habitable globe.

Mr. Cornish is a firm believer in the influence of water contamination as one of the factors in the extension of cholera but does not consider it by any means the sole agent.

Obstetrics and Diseases of Women.

ART. V.—*Extracts from Remarks upon the Diagnosis of Ovarian Tumors from Fibro-cystic Tumors of the Uterus.* By CHAS. C. LEE, M.D., Surgeon to the Charity Hospital, formerly Surgeon to St. Vincent's Hospital, etc., New York.

Within the last ten years the study of ovarian diseases has passed from the region of vague conjecture into the light of exact knowledge. In no other department of medicine, excepting ophthalmology, have the advances been so rapid and the old points of departure so completely swept away. Ovariotomy, which, in 1861, was still experimental, and which ten years before that was derided by the vast masses of the profession, is in 1871 as firmly established as any surgical procedure. Nay, in cases that have been properly discriminated, it is decidedly more successful than most of the so-called major operations of surgery.

But it is, unfortunately, at this initial step—the differentiation, that is, of purely ovarian growths from those connected with the other abdominal viscera—that the great difficulty in the management of such cases occurs; and, as all treatment of necessity hinges upon diagnosis, this obscurity in complicated cases remains to the present day the great bar to the perfect success of ovarian surgery.

An immense amount of labor and ingenuity has been expended in this direction; but that almost insuperable diagnostic difficulties still occur, despite the efforts of Kiwisch, Spencer Wells, Clay, Keith, Kœberlé, Peaslee and Atlee—names illustrious in the records of ovarian pathology—the cases detailed in this paper will render evident.

What are the leading conditions likely, in a given case, to be confounded with an ovarian cyst? Prof. Thomas, in his admirable chapter upon "Ovarian Tumors," thus enumerates them:*

Fecal accumulation.
Extra-uterine pregnancy.
Normal pregnancy.
Uterine fibroids.
Ascites.

Hydatids.
Distention of uterus by fluids.

In Mr. Baker Brown's work on the "Surgical Diseases of Women,"† they are somewhat more fully classified, as follow:

Retroversion and retroflexion of uterus.
Tumor of uterus; *a*, solid; *b*, fibro-cystic.
Ascites.
Pregnancy.
Pregnancy complicated with ovarian dropsy.
Cystic abdominal tumors.
Distended bladder.
Accumulation of gas, or of fæces, in intestines.
Enlargement or tumors of spleen, liver and kidneys.
Recto-vaginal hernia, with displacement of ovary.
Pelvic abcess.
Retention of menstrual fluid.
Hydrometra.

The lists given by other systematic writers on the subject agree substantially with the foregoing.

From most of these conditions the differentiation of an ovarian tumor cannot be said to be difficult to a reasonably careful practitioner, for either the history of its development or the physical signs obtained by a conjoined abdominal and uterine examination will nearly always suffice to decide the question.

But one of these affections presents difficulties so immeasurably greater than the rest, that its consideration alone will occupy us at present. We refer to the so-called "fibro-cystic tumor of the uterus," or the uterine fibroid that has undergone cystic degeneration, an exceedingly rare growth and essentially distinct from the ordinary fibroid in whose substance minute fluid collections have formed. The anotomical structure of these formations is minutely described by Dr. C. G. Ritchie,* from dissections of specimens removed by Spencer Wells. Their pathology was first studied by Cruveilhier, who deliniates their appearance† and divides them into two classes. One of these consists of irregular cysts with undeveloped walls, due apparently to an œdematous infiltration of the fibroid, the "interlobular spaces" of which gradually dilate and finally give way from the pressure of the interstitial liquid. Anfractuous cavities are thus formed, more or less closely resembling true cysts,

* Practical Treatise on the Diseases of Women, First Edition, p. 536.

† Second London Edition, p. 308.

filled with a limpid serous liquid, generally of a light-yellow hue, but sometimes bloody. In the second variety are found perfect cysts of smooth walls, which Kœberlé considers due to the progressive dilatation of the lymphatic vessels.‡ The cavities usually communicate with each other, the larger ones being spherical in shape, while the smaller accessory cavities are flattened or shaped like irregular sinuses. Their liquid contents are yellowish, limpid, fibrinous, and spontaneously coagulable.

Mr. Paget thinks the cysts are due either to a "local softening and liquefaction of part of the tumor, with an effusion of fluid in the affected part; or to an accumulation of fluid in the interspaces of the intersecting bands; and these are the probable modes of formation of the roughly-bounded cavities that may be found in uterine tumors."§

IN OVARIAN CYSTS.	IN FIBRO-CYSTS OF THE UTERUS.
1. Disease may occur at any period, even before puberty.	1. Scarcely ever occurs under thirty—generally from forty to fifty.
2. Development rapid—usually under two years.	2. Development slow; generally over two years.
3. Aspect of face unaltered, if general health be fair.	3. "Facies uterina" generally marked; expression anxious and dejected.
4. Fluctuation equable over whole surface of tumor.	4. Fluctuation confined to certain regions—generally to upper portion; while lower is hard and dull.
5. Vaginal examination shows little displacement of uterus—mass smooth and distinct from uterus.	5. Vaginal examination shows uterus high up or displaced. Mass either not detected, or continuous with uterus.
6. Mobility of uterus independent of tumor from beginning—pelvic adhesions rare.	6. Independent mobility of womb confined to last stage of disease. Pelvic adhesions common.
7. Tapping causes complete collapse of unilocular cysts—in polycystic tumors, it reveals the endocysts.	7. Tapping causes only partial collapse, leaving base of tumor firm and indurated.
8. Fluid clear, straw-colored, serous; or viscid, clear, mucoid, albuminous.	8. Fluid either brownish, bloody seropurulent, muddy; or thin, yellowish, containing shreds of lymph or cholesterin.
9. When exposed by gastrotomy, sac is pearly-blue, or white and glistening; rarely vascular.	9. Exposed sac dark, vascular, thick, and frequently fasciculated with fibrous bands.

* Wells, "Diseases of the Ovaries," vol. i., p. 259.

† Anat. Pathol., livraison, xiii., pl. 4.

‡ Gazette Hebdom., No. 11, 1869, p. 164.

§ Lectures on Surgical Pathology, Third London Edition, p. 479.

ART. VI.—*Case of Inter-Menstrual or Intermediate Dysmenorrhœa. By* W. O. PRIESTLEY, M.D., *Professor of Obstetric Medicine in King's College, London.*

The author pointed out that, although much had been written concerning dysmenorrhœa, and several forms of it had been described in accordance with the pathological views taken of its causes, the description of the several varieties was ordinarily limited to the time of the catamenial period, with the two or three days additional which may precede and follow the menstrual flow. From time to time, however, cases of a more obscure kind presented themselves, in which the chief suffering is remote from the actual menstrual period, but comes on, nevertheless, with the same punctuality, and is probably dependent on organic changes associated with the production of the catamenia. Probably other practitioners had observed like instances, as they were not unfrequent, but as the author had met with no description of them, he brought the subject before the society as a fragmentary contribution to the pathology of uterine affections, which might possibly evoke further elucidation by discussion.

In all the cases detailed severe pain was experienced by the patients midway in the menstrual interval. The pain commonly came on about fourteen days after a catamenial period, and, after lasting a variable number of days, ceased before the supervention of the next expected period. In one case, the pain, beginning midway in the interval, ran into the following monthly period, and was relieved by its flow. The suffering was constantly referred to one or other ovarian region, and in three cases out of four marked tumor, or thickening from old adhesions, was found in that locality.

The reason for the occurrence of pain in the inter-menstrual period, and with such regularity, was not, in the present condition of our knowledge, perfectly obvious. A study of the physiological and pathological conditions left little doubt, however, that it was due to perturbations in the function of "spontaneous ovulation" habitually going on in the ovary. Hypertrophy of the structure of the ovary, or thickening of its induism, would lead to undue vascular excitement, and impede the advance of ova to the surface in their attempts to attain maturity. It was not unreasonable to suppose, from all the known facts of the case, that preparation for an approaching period began in the ovary ten or

fourteen days before the occurrence of the monthly uterine discharge, and if the initial steps in the process of ovulation were opposed by certain pathological conditions, pain would ensue. Nay, in the absence of distinct organic change, it might readily be imagined how special irritability in the ovary would cause an unusual amount of disturbance whenever there was occasion for the exercise of fresh activity in the organ. This latter class of cases would partake more or less of a neuralgic character.

The treatment would depend on the pathological condition as ascertained by examination. The pain being only a symptom, it would be needful to inquire into the cause; and if there were tumor, or thickening depending on former inflammation, absorbent remedies would be indicated. If no organic change of structure could be detected, antineuralgic remedies, such as quinine, iron and arsenic, would best answer the purpose of cure.—*London Lancet.*

ART. VII.—*Mechanical Dysmenorrhœa and Chronic Endometritis.* By ALFRED HALL, M.D., Brighton, England.

In the following case, mechanical dysmenorrhœa and chronic endometritis were cured by dilatation with laminaria-tents, and the application of a solution of nitrate of silver to the uterine cavity, the result being remarkable fecundity. The patient was thirty-four years of age, well formed, and healthy looking. Her case was characterized by a history of long-continued menstrual trouble, dating from the first catamenial epoch—pain in the left hypochondrium, symptoms of spinal irritation, hysteria and dyspepsia. The menstrual flow usually lasted seven or eight days, but brought no relief to the pain. Marriage in 1867 brought no change; on the contrary, an attack of menorrhagia aggravated her condition. The lips of the os being found excoriated, and the cervix congested, blood was taken by puncture, and nitrate of silver applied, but without much benefit. Finding considerable contraction in the cervical canal and os internum, I dilated it with laminaria-tents, of which two were used, at an interval of ten days; and a solution of nitrate of silver (two scruples to an ounce) was applied twice a week to the interior of the uterus. Marked benefit ensued. The next three catamenial periods passed off without any suffering. Pregnancy then occurred, and she was delivered of a full-

grown female child at term; which, however, she could not suckle. After passing two or more periods naturally, pregnancy again occurred. She went the full time, and was delivered of another healthy infant. This she was also unable to suckle. For the third time pregnancy ensued at the end of three months from her last labor. She went the full time as before, and on this occasion gave birth to three female children, all well formed and healthy. She was unable to suckle them. Two died within the month, and the third is now in a state of slow decline. Thus this poor woman gave birth to five full-grown infants in the short period of one year and ten months.—*British Medical Journal.*

ART. VIII.—*Removal of the Left Ovary for Colloid Cancer Weighing Nine Pounds and a Half; Recovery.* By Mr. FREDERICK B. JESSETT.

Margaret C——, aged forty, married, with four children. Noticed the enlargement nine months before admission. She was seen first in June, when she was suffering from acute pain in the abdomen. On examination, a tumor, about the size of a cocoa-nut, was discovered occupying the left inguinal region. There was excessive tenderness over the whole tumor. Catamenia had ceased for three months. The urgent symptoms were readily relieved by hot fomentations and opiates. The patient did not come under notice again until September, when Mr. Jessett found her suffering intensely from acute pains over the whole of the abdomen. On examination, there was found a large tumor, which was divided apparently into four distinct cysts, each one of the size of a large cocoa-nut. Only in one of the tumors, however, was fluctuation perceptible, the others giving to the touch almost the feeling of the gravid uterus. There had been no return of the catamenia for over five months. On auscultation, not any fœtal bruit could be heard. The percussion note was dull generally, but in the right flank it was clear.

The patient was admitted into the cottage hospital on September 26th, 1871. On making a vaginal examination, the uterus was found enlarged and evidently pregnant. Two days afterwards she again complained of great pain over the abdomen, and there was great tenderness over the tumor;

this was again relieved by hot fomentations. On October 4th Mr. Jessett was sent for, and found the patient in great pain, coming on at regular intervals. On examination, the *os uteri* was found to be dilated as large as a crown-piece; and a few hours afterwards she was delivered of a six-months child, stillborn.

The patient made a good recovery from her labor. The size or shape of the tumor was not perceptibly lessened or altered. The catamenia appeared on October 23d, and ceased on the 28th.

It was determined to operate on the 30th of October. The measurements before the operation were—round the abdomen at the umbilicus, 38 inches; two inches below, 39 inches; from umbilicus to pubes, 11 inches. Pulse 96 per minute; countenance sallow. The bowels having been well relieved by an enema, chloroform was administered, and an incision below the umbilicus, four inches long, divided the peritoneum and let out a quantity of ascitic fluid. All the cysts, with the exception of one, were found to be solid. This was emptied in the ordinary way; the incision was then enlarged, and, finding the tumor firmly adherent to the omentum and parietes, Mr. Jessett proceeded carefully to break down the adhesions. As there were no adhesions posteriorly, he had no difficulty in turning out the tumor. The pedicle, a thin, narrow one, was secured with a whip-cord ligature—previously soaked in carbolized oil (1 to 5)—and dropped back into the abdomen. There being some hemorrhage from the omentum, which was a good deal torn in separating it from the tumor, a part of it was ligatured and cut off. The edges of the wound were brought together with silver wire sutures, the wound strapped up with plaster, a dressing of carbolic oil applied, and a large linseed-meal poultice, which was changed every five hours during the first three days, placed over the whole abdomen; an opiate suppository was also administered. The wound healed by the first intention. The sutures were removed on the seventh day, and the patient made a good recovery, without having had a single bad symptom. The temperature after the first day from the operation never exceeded 99°.

Mr. Marcus Beck, who examined a portion of the tumor, pronounced it to be colloid cancer.—*London Lancet.*

Ophthalmology and Otology.

ART. IX.—*Case of Chancre of the Eyelid; Complicated with Gonorrhœal Ophthalmia.* By WM. F. SMITH, M.D.

Sept. 1871. Was called in consultation to see a young lady, Miss A. G., *aet.* 19. Had arrived in the city four days before from a foreign port, having made a sea voyage of forty days duration.

Patient was suffering intensely from the severe inflammation of left eye, and gave the following history: Ten days before arriving, had noticed a small "pimple" with some swelling on the lower lid of the eye; supposed that it was a "*sty.*" This was followed in three or four days by a much more severe inflammation, which involved both lids, and was accompanied by great swelling, intense pain, and a purulent discharge, which had continued up to the time of the consultation.

By objective examination I found both lids very greatly swollen and thickened; a very copious discharge of pus; also that almost the entire cornea had already sloughed away. On everting the lids, I noticed that the mucous membrane bled freely when irritated by contact of any solid substance, but that the discharge was not sanious, and presented only the characters of pure pus. I could not distinguish that the lower lid was any more thickened or inflamed than the upper one; did notice, however, that a portion of the outer half of the margin of the lower lid was devoid of lashes, but from the general appearance of the eye, I could not localize this portion as the initial point of the inflammation, hence diagnosed *Gonorrhœal Ophthalmia.* At this time I did not suspect the existence of chancre. Examination of the urethra revealed the existence of Gonorrhœa, and I accounted for the history given above as to the "pimple" or "sty," by supposing that the lid had been

accidentally abraded, and that the patient in touching or picking the abraded surface with the finger, and possibly not observing all the rules of cleanliness, had conveyed a few globules of pus from the urethra to the conjunctiva, and hence the infection.

Ordered: Ferruginous tonics and treated the conjunctiva locally by everting the lids and brushing the mucous membrane with a strong solution of Arg. Nit. (viz: gr. xl ad ℥i aq. Dest.,) I always neutralize the excess of the caustic solution by washing the lids with a solution of common salt (chloride of sodium), as soon as I notice that the nitrate has produced sufficient effect. I also directed the instillation of two or three drops of a solution of the sulphate of Atropine (viz: Atropiæ Sulph. gr. iv ad Aquæ Dest. f ℥i) every two hours.

The consulting physician attended to the urethral discharge, and I continued to make the local applications daily, and although the general œdema, as well as the copiousness of the purulent discharge, became much diminished, the pain did not seem to abate, the cornea sloughed away entirely and the constitutional symptoms of weakness and debility did not diminish.

The fifth morning of the treatment, I called the attention of my *confrere* in the case, who was present, to a peculiar hardness of the outer half of the lower lid, which now become apparent, as the tumefaction of the lids diminished and the inflammation of the mucous membrane became, in itself, less violent. With considerable hesitation I suggested to him my suspicions of a chancre, but, for obvious reasons, did not dare to suggest the idea to the relatives of the patient.

A very careful and thorough examination of the genital organs was now made, and no sign of syphilitic sore was discovered. The lymphatic glands in front of the left ear, also some in the neck of the same side, were somewhat enlarged, hard, and painful to the touch. We concluded, however, to await further developments. The following morning all doubt was removed by the appearance of a well marked syphilitic roseola on the forehead, scalp, palms of

the hands, and soles of the feet. This was accompanied by a very slight sensation of itching. We now came to the conclusion that we had to deal with gonorrhœal ophthalmia, complicated with chancre of the eyelids; certainly a very remarkable combination. I continued the local treatment by the caustic solution, also the instillation of Atropine for the Ophthalmia with its corneal complication. I cauterized the chancre very thoroughly with the solid stick neutralizing the excess of the nitrate with the chloride of sodium solution as before.

In order to get the patient under the influence of mercury as thoroughly and quickly as possible I directed the inunction of an ointment compounded as follows: Ung. Hydrg. ℥i; Ext. Belladonnæ ʒi; ft. ung. I directed it to be applied thoroughly in the axillary regions, in the popliteal spaces, along the inside of the thighs and in the groins, for three consecutive evenings, and directed a hot bath the morning after the third application.

This treatment was immediately followed by an amelioration of all the symptoms. Pain and soreness ceased, but the iris with the adventitious tissue which had been formed in consequence of the sloughing of the cornea, projected from the ocular globe, forming a complete staphyloma, which caused considerable annoyance consequent upon the constant irritation produced by contact with the lids and their cilia.

The roseola gradually disappeared and the sclerotic began to be visible through the now healthier conjunctiva, but the staphyloma became the source of great pain which was not confined to the eye, but followed the course of the fifth pair over the forehead and scalp, and extended downwards over the side of the face. Meanwhile the tumor itself increased very much in size and projected between the lids which could, only with difficulty, be closed over it. I watched these various symptoms with considerable anxiety, and was not disappointed when the patient began to complain of a certain dimness of vision and photophobia in the other eye. Fearing sympathetic ophthalmia, I now advised operative interference, at least for the excision of the

staphyloma, if not the removal of the entire globe, and on explaining to the parties interested that the latter was the quickest and perhaps the most complete and least objectional way out of the difficulty. Enucleation was determined upon in the fourth week of the treatment. The operation was performed in the manner it is described by Wecker in his "*Traitè Pratique des Maladies des Yeux,*" vol. 1, p. 823. It may be proper, however, to state here, that in the first step of the operation, viz: In dividing the attachments of the conjunctiva to the globe at the conjunctival ring, I use Bowman's curved, probe-pointed knife for slitting the canaliculi, instead of the curved scissors as recommended by Wecker, for the reason that with the scissors a rough uneven opening is made in the conjunctiva, which does not so readily heal, as when the conjunctiva is shaved off from its connection to the cornea "sickle fashion," with the small curved knife before mentioned. The suppuration at this time having been reduced to a minimum, no inconvenience was felt from the accumulation of pus under the compress bandage which was adjusted after the operation, and it was allowed to remain in position for three days, when it was removed. Comparatively a very small amount of pus was found between the lids, and the wound in the conjunctiva was discovered to have perfectly healed. A flat round disc, bounded by the *cul-de-sac,* is always left after this operation, and from the fact that the tendons of the muscles are divided close to their insertion into the sclerotic, this disc or mass of orbital adipose tissue which answers the part of a stump, is covered anteriorly by the capsule of tenon, and is moved perfectly by the recti and obliqui muscles, and forms an excellent base for an artificial eye. In this case such an eye was worn with comfort ten days after the operation, its movements being quite satisfactory. At the present time the patient enjoys ordinary good health. On examining the eye a depression about one and one half lines in depth and occupying in extent about one third of the lid, may be seen, which is devoid of lashes. It is easy to be seen that the loss of substance is not confined to the margin of the lid, but involves the tarsal cartilage. The

scar is somewhat unsightly, especially as it uncovers a greater extent of the glassy organ which serves at best as so poor a substitute, even in color, for nature's handiwork. The patient was ordered and continued to take *Potassii Iodidi* in combination with bitter tonics for one month after the operation. No secondary symptom has been detected since the disappearance of the roseola.

This case is essentially different from any reported case I am able to find in the records of any of the authors on ophthalmology to which I have access, in the fact that we had here a well-marked Hunterian chancre complicated with gonorrhœal ophthalmia, which latter was evidently acquired in the ordinary manner, viz., infection by contact of pus from the urethra. I will not attempt to conjecture how the syphilitic infection was received on the eyelid; and although the gonorrhœal ophthalmia appeared several days after the specific disease was manifested, I am not prepared to affirm that the gonorrhœa did not appear simultaneously with the chancre.

Wecker, in his "*Maladies des Yeux*," vol. 1, pp. 174 and 622, reports four cases of chancre of the conjunctiva and eyelids, and neither case was complicated by a copious purulent discharge.

Sœlberg Wells* and Bumstead†, in their remarks on chancre of the lids and conjunctiva, do not mention any case in which the diagnosis was obscured by any considerable tumefaction and purulent discharge. According to the statements of these authors, a soft chancre of the conjunctiva or eyelids must be very rare, if it ever exists at all, and they mention no record of any such case. They speak only of the ulceration with an indurated base, presenting all the characteristics of the Hunterian chancre as it is found on the prepuce; it produces great injection of the conjunctiva, with much irritation when existing in this region, though never exciting purulent ophthalmia; it very rarely involves the globe of the eye, and simulates in some degree the dif-

* Wells' Diseases of the Eye, p. 672.

† Bumstead on Venereal Diseases, p. 657.

ferent forms of lupus and epithelial cancer, and caution is recommended only in differentiating it from these malignant forms of disease. Wecker* mentions the case of a lady, *aet.* 38, where the chancre appeared on the conjunctiva at a point between the external border of the left cornea and the insertion of the tendon of the external rectus, which was mistaken by a surgeon for epithelioma, and was excised, of course, without any amelioration of the pain, and other symptoms. This case recovered rapidly under vigorous anti-syphilitic treatment.

We cannot, therefore, suppose that the existence of the chancre excited the excessive purulent discharge, or that it had anything to do with the sloughing of the cornea. The "pimple" or "sty" mentioned by the patient was the initial syphilitic sore, and the patient undoubtedly carried true gonorrhœal pus from the urethra, by picking at or handling it with the fingers. The sloughing of the cornea almost invariably occurs in cases of neglected or badly managed gonorrhœal ophthalmia, and is produced by pressure of the inflamed and œdematous conjunctiva (chemosis) upon the nutritive vessels of the cornea, at the conjunctival ring, thus depriving that membrane of its nutritive supply and ensuring necrosis.

It is thus seen, in reviewing the case and its history, that we had here to deal with the two diseases—*Chancre* and *Gonorrhœal Ophthalmia*, both distinct and well marked, existing simultaneously in the same eye.

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* Maladies des Yeux, vol. 1, p. 177.

Editorial.

Art. X.—*Lectori Salutem.*

Latterly there have been published in the Pacific States and Territories, but two journals devoted to the healing art, and intended as mediums of communication and of union between the numerous members of the medical profession working in this section of our country. Those physicians who look upon San Francisco as the intellectual centre through which they are kept in professional communication with their distant brethren, where they can publish for the general consideration of medical men the results of their own thoughts and observation, and whence they receive the results reached by others, have been restricted to the pages of one medical periodical; and while conceding the ability with which this periodical is conducted, and the high position it has attained in the list of kindred publications, yet it has been felt that something of broader scope and deeper reach, of more general sympathy with the outstretchings of modern science, as well as more minute detail in the various special branches of Biology and Pathology, was needed. It will be the aim of the Western Lancet to do something toward supplying this need. Recognizing the fact that the Medical Art, being based upon Biology and Chemistry, is only a component member of the great brotherhood of the Sciences, these pages will be open to the consideration and discussion of any question that either arises directly out of the *Ars Medendi*, or that inferentially affects it in its relations to Biology, Psychology, or Sociology; and in this way we trust we shall place ourselves in sympathy not only with all members of the medical profession, but with intelligent and reflective persons in the community at large, who are studying out the grand problems of social improvement and human advancement, or working them out in detail in their various departments.

Deeper and more potent than the immediate exciting or ordinary predisposing causes of disease, because more universal and continuous in their operation, lie those subtle influences that are rooted in the customs and habits of men, and that have their strength in the social organization of races or nations; those causes that affect not merely every individual, but, by a transmitted influence, modify the growth and development of the offspring, while yet they also cotinnue to operate directly upon that offspring and through them, as well as directly, upon the children of such offspring —and so *ad infinitum*. From the influence of such causes nations degenerate, are conquered and overrun by stronger, healthier neighbors, and finally lose their individuality by becoming merged in the overbearing tide of the *truly* superior race; or else by the observance of the laws of hygiene, which are identical with those of an elevated morality, they have gradually risen from obscurity to power and empire. It is reported of the elder Napoleon that he once said that "God fights on the side of the heaviest artillery." That is emphatically true of the artillery of strong muscles, big bones, clear, well-balanced brains and nerves. It is the province of the physician to search out such causes of degeneration, and to disseminate that knowledge, which always undoubtedly is the first great step toward their cure; and also to stand ready to assist as far as in him lies the proper social and State authorities in compassing the same good end.

This journal will be the organ or exponent of no sect or party, either in medicine, religion, philosophy, or politics; but on those points in which the duties of the physician bring him into relations with the community, either as advancing public hygiene, or detecting, exposing and making sure the punishment of social crimes, or circumscribing and making more manageable certain social evils, or diminishing and preventing the ravages of epidemic diseases; on these points a dignified, outspoken, fearless but courteous policy will be pursued. In undertaking not only to advocate truth, but also to expose and attack falsehood, it may be necessary sometimes to differ from the honest convic-

tions of others, and offense may thus be taken when none has been intended; but personal enmities, besides being out of place in a publication devoted to scientific purposes, will be the last thing sought or desired in these pages, and every honorable effort will be made to avoid them. Yet it should also be understood that the advocacy of what is right and the exposure of and assault upon what is clearly wrong will not be delayed or enfeebled by any personal considerations.

THE WESTERN LANCET is published by an association of physicians, who have elected EUSTACE TRENOR, A.M., M.D., and HEMAN P. BABCOCK, M.D., as Editors. It will consist of six departments, each under the supervision of a separate physician, a member of the association, and the entire journal under the joint management of the above editors.

These departments are as follows, viz: Surgery; Institutes and Theory and Practice of Medicine; Obstetrics and Diseases of Women; Ophthalmology and Otology; Miscellaneous and Reviews; and Editorial. The WESTERN LANCET will be published monthly, and each number will contain at least one original case or paper in each of the above six departments, as well as a photograph, or more than one, of some original specimen or case. By this arrangement it is thought that all the advantages and the more perfect results obtained from a division of labor will be gained; and each of the practical departments above being managed by a physician whose training and work lie especially in that department, it is hoped that the result will be gained of making each number of the journal more than ordinarily interesting. By publishing on the last day of each month each number will contain three weeks' news of that month; a desirable object.

With this exposition of the scope and organization of our new work we launch forth upon the tide of journalistic life, trusting that we shall do our part well, and hoping for the good meed of success, both in a professional and a financial point of view.

ART. XII.—*Remarks on Medical Journalism.* By W. S. THORNE, San José.

While it is true that a very considerable part of our medical journals are given to matters of great practical and scientific interest, it is equally true, that a review of our journalistic literature will hardly fail to excite regret that so much yet remains which is objectionable, for its apparent lack of that finish and accuracy resulting from mature observation and careful study. While it would be unwise to discourage the accurate and faithful record of new facts or observations occurring in each individual experience, it is equally so to encourage the increasing tendency to authorship and the exhibition in print of so much that is problematic, untenable, manifestly incorrect, or absurd. I desire to be distinctly understood that I in nowise allude to those earnest and conscientious workers who are known by their accuracy and careful research, nor to those who contribute the results of their experience and observation for the purpose of inviting investigation or comment. I particularly refer to those inveterate scribblers periodically pregnant with new and unverified observations, fanciful theories and startling discoveries of professional errors. The position of the latter to *their* assumed unjointed state of science is suggestive of a poetic prototype whom "cruel spite" had thrust upon his generation as royal bone-setter of the times. Were it possible for Hippocrates or Celsas to rise out of the dust of centuries to review our literature, it is not unlikely they might question many claims to modern invention and original discoveries, and convince us that we could learn much, if, like the crab, we went backward. Aristotle has not improbably suggested that "all art and all wisdom may have often been fully explored and again quite forgotten." The fault of hastily venturing into print upon scientific subjects, without patient and systematic investigation, cannot be too strongly deprecated nor unsparingly criticised. First, because it fosters carelessness in observing and the habit of supplying syllogistically what has been imperfectly observed.

Second, since correct observation of organic and inorganic forms and their phenomena is the basis of all positive medical knowledge, it follows that whatever is antagonistic to the mental discipline necessary to the skilled and reliable observer, is inimical to true medical progress. If "it is a science and an art to observe," and these attainments are among the requisites necessary to medical authorship, the voluminous proportions of our literature would suggest a very general distribution of rare qualifications. The suggestion is apparent not real. Peruse a series of journals and you will find them capable of almost indefinite condensation, if you eliminate the chaff. Observations at variance with established facts, untenable claims to original discoveries, reports of cases neither instructive or novel, and the therapeutical value of new remedies without adequate experience should be prohibited from medical literature. Chloral Hydrate and Cundurango scribblers *et hoc genus omne* would thus be denied one medium at least of *charlatanerie*. How much defeat and chagrin may follow the hastily written results of inadequate observation and experience !

A medical gentleman of learning and ability asserts that during his early practice, an author recommended a particular remedy in certain forms of ophthalmia as safe and efficient, which he used in a similar form of the disease and total blindness to his patient ensued. I do not suppose that consequences so grave are frequent, nor do I impute the entire responsibility to the author of the advice; it must be shared in some degree with the incautious practitioner, who failed to investigate the nature and effect of the remedy.

Our medical journals are the representative of contemporary science and art, and the thoroughness of research and the soundness of opinions and principle will be to the future student the standard of our intelligence, and the measure of our advancement. The conviction that we are gathering data for the future as well as for ourselves, and that the work will be judged by the accumulated wisdom of a more advanced posterity, should deter us from committing

ourselves to fanciful theories and precipitate conclusions. He who can not patiently labor in obscurity, but requires the plaudits of public approval to stimulate him, will scarcely outlive his generation. He who forgets his egotism and humbles himself to become a follower and observer of nature, will be led by her through intricate paths and complex labyrinths, and will receive the guerdon of those who learn to labor and to wait with her.

As it requires the highest mental culture or natural gifts to interrogate nature, so is needed a peculiar aptitude or preparation to interpret correctly phenomena observed; let the fortunate possessor of either or all of these qualities enter the field of authorship, for his province is well chosen. The reflection that these powers have rarely culminated in one mind, and that when so combined we behold a Newton, a Humboldt, a Cuvier, a Linnæus or Buffon, should make us modest and doubtful of our ability. It is the union of these qualities that has formulated those immortal principles that govern the Monad and the Planet, the universe in its minitude and its magnitude. To conclude then, we require a more enlightened view of the mental and educational requirements to authorship, if the object be the progress of science and the cultivation of the medical mind. If to gratify *cacoethesis scribendi*, or personal consideration, the channel through medical journals should be rigidly closed against it. *Ne Vile Fano.*

Art. XIII.—*Cunderango.*

We observe that certain parties in San Francisco and the Eastern States have already siezed upon the brief excitement, so to speak, that was felt throughout the medical profession upon the public announcement on high authority that a new and most successful remedy had been discovered, capable of arresting the ravages of cancer, and even of curing cases far gone in that disease. Like the late vaunted specific for small pox, sarracenia purpurea, of twin Indian mythical origin, it has been tried in skillful and trustworthy hands, and of course found wanting, there being no anti-schirrous virtue in it; but it *has* virtue, greater in the eyes of those to whom it proves useful, than would be the power of arresting disease or saving human life—it can be made to put money in the pocket by dint of unblushing effrontery and lying publications.

Those land pirates, who, after the battle rob the dying on the field are not worse than the unprincipled men who seek to raise hopes they must know are false, and out of those hopes squeeze a few paltry dollars.

It is said by a correspondent in Ecuador, the habitat of the Cundurango, that only one of the eight varieties growing there is believed by the native Indians to possess any medicinal value, that found at Loja, in the Andes; and even this only in cases of syphilis, while yet it would appear that it is there reported that every case cured by Cundurango died soon after being cured. The speculators who purchased largely for sales in this country obtained one of the inert varieties, so that after all, the remedy advertised as specific is probably inert, instead of being so fatal as the true medicinal (?) Cundurango would be likely to prove; at any rate, we trust that we shall not see it " put upon the market " here, to use the commercial phrase, to any great extent.

ART. XIV.—*Criminal Abortions.*

Volume XXII. of the Transactions of the American Medical Association, the last volume published, contains a report on this important subject, signed by a committee consisting of D. A. O'Donnell, M. D., of Maryland, and W. L. Atlee, M. D., of Pennsylvania. The Committee, in concluding their report, offered the following set of resolutions, viz. :

Resolved, That we repudiate and denounce the conduct of abortionists, and that we will hold no intercourse with them, either professionally or otherwise, and that we will, whenever an opportunity presents, guard and protect the public against the machinations of these characters by pointing out the physical and moral ruin which follows in their wake.

Resolved, That, in the opinion of this Convention, it will be unlawful and unprofessional for any physician to produce abortion or premature labor without the concurrent opinion of at least one respectable consulting physician, and then always with a view to the safety of the child, if that be possible.

Resolved, That we respectfully and earnestly suggest to private teachers and professors in public institutions the propriety of adopting, according to their judgment, the means best suited for preserving their pupils, and those who may hereafter come under their care, from the degrading crime of abortion.

Resolved, That we respectfully call the attention of the clergy of all denominations to the perverted views of morality entertained by a large class of females, aye, and men also, on this important question, and the ruin which has resulted and continues to result daily to the human family from such views.

Resolved, That we respectfully solicit the different medical societies, both State and local, to send delegates to the clergymen in their respective districts to request their aid in so important an undertaking.

Resolved, That it becomes the duty of every physician in the United States, of fair standing in his profession, to re-

sort to every honorable and legal means in his power to crush out from among us this pest of society; and, in doing so, he but elevates himself and his profession to that eminence and moral standard for which God has designed it, and which an honorable and high-toned public sentiment must expect at the hands of its members.

When a man of brutal nature hires himself out to be an assassin and performs the work of killing, the law takes cognizance of the offence and makes a sustained effort to inflict proper chastisement. If an officer of the regularly organized army of any country were, in addition to his ordinary duties to his government, to also hire himself for a bravo to serve the purposes of private resentment, he would speedily suffer degradation and punishment. Yet it is notorious that the abortionists, who not only escape legal retribution but also are courted in society, are not alone the ignorant and unpolished who have risen by the buoyant aid of a nefarious wealth. There are some educated physicians of high social standing, not only trained but even sacredly bound by oath to war against disease and death and their causes, who nevertheless in some instances forget these solemn obligations, and are induced by wrong considerations, usually pecuniary, to commit child-murder, or worse still, make a habitual lucrative practice of it. The law hesitates to touch these; in fact, it seems almost impossible, owing to the circumstances of the case, to make a law and carry it into execution, which shall prevent men and women from criminal abortions. There seems to be only one way to control and end the growing, overshadowing evil, and that is by educating public opinion, *i. e.*, disseminating the truth—for *magna est veritas et prevalebit*—about the retrogressive and suicidal tendencies of this practice.

It may be stated, as a law of hereditary transmission, that the acquired nature of the parent becomes, to a greater or less extent, the inherited nature of the offspring. The habitual drunkard transmits to his children more or less tendency to alcoholic stimulants, even though he acquired his love for them and did not in any degree inherit it. That which holds good of the whole system probaly also holds

good of every organ in it. A diseased parent does not propagate healthy children. It is well known that the tendency to particular forms of disease and to disorders of particular organs is heritable—runs in families, to use the common phrase. It is too well understood to require more than mention that abortion is one of the most common causes of uterine disease, often of intractable character, and gives a blow to the female system, from which, frequently, recovery is impossible. We quote from the report of Drs. O'Donnell and Atlee: "The doctrine is now pretty well established that the character of the offspring depends, physically, and to a certain extent, morally, on that of the mother—that during their intra-uterine life the physical developments of the mother are imparted to the children, and that soon after birth these characters become manifest." Can it be supposed that a permanently diseased womb will yield a perfectly healthy fruit? More than in the case of other organs, should we not anticipate that a degenerated uterus would bring forth degenerate children—more than possibly, children with weakened or otherwise abnormal reproductive organs, in addition to the general bad systemic condition? All the organs of the body in the wear and tear of life are constantly exposed to disease-producing influences, and it is true of the individual organ as it is true of the whole system, that that which is hereditarily weak, tends, under these influences, to grow weaker and to yield to the assaults of disease. To be weak is to be miserable, and in the struggle and warfare of life the weak must suffer—must go to the wall and finally be crushed out of existence. Dr. Allen, in his "Essay on Population," quoted in the above report, says: "It seems from the census and registration of France that the population of that great nation has become almost stationary, and that the number of births there has been steadily decreasing for the last fifty years. * * * A similar class of facts is found to prevail with the descendants of the first settlers of New England. The Puritans were originally a prolific people. They had, on an average, for several successive generations, from six to ten children to each married couple, but within the present century the

average has dropped down from six to about three, and the birth-rate of the original stock in some cities has even been less than it is in France." He further adds: "If we compare the number of children born of the strictly American, with that of the Irish, the Scotch, the English and the German, the difference is surprising. We find that the latter, both in Europe and in this country, have, on an average, two if not three times as many as the former, even though both classes may live in the same locality and under the same general influences." It is well known that the social crime, in respect of which the French and Americans proper, particularly in cities, most nearly assimilate, is criminal abortion. Who will dare to say after this that "America should belong to the Americans." It should, and apparently will, eventually, belong to that race, probably the German, that most eschews this abominable crime, and most observes the laws of hygiene and morality.

The divine law impressed upon all vital beings is the law of increase and multiplication by sexual congress of the male and female. There is also another peculiarly human, because intended to supplement in the case of mankind the above universal divine law, viz.: that the marriage tie shall be sacred. The husband who consents to the performance of a criminal abortion on his wife makes a concubine of her. The wife who consents to its performance reduces herself to the same level, and by thus destroying the element which renders the marriage tie sacred, loses the moral status which binds her husband to her as the only woman with whom he may cohabit. Criminal abortion produced on a married woman for "prudential" considerations really degrades marriage into a condition akin to concubinage—it *is* concubinage *de facto*, though not *de jure*. It is a violation of the marriage contract in its most sacred feature, and opens the door wide for other violations. Women, as a general rule, when relieved from consequent social penalties, do not resist temptation more strongly than men, and when the fear of discovery is removed and adultery or fornication can secretly be prevented from issuing in childbearing, one of the strongest barriers against them that society possesses is done away with.

If abortionists occupied the status of pariahs to society—if they were so regarded that no one of reputable character or good standing could associate with them or give them other open countenance without losing caste, then their sphere of activity would be so limited as to cause little uneasiness for public morality or national degeneration. But unfortunately the plant which is rooted in the dregs of society spreads its branches and yields its fruit in the upper levels also, and educated physicians are found who will make fœticide a part of their practice, and who can afford to laugh at laws aimed at the crime. Laws will not stop it, but in a general knowledge of the truth of the dangers and evil consequences of the act there lies more hope. If women properly appreciated the matter there would probably be little difficulty in bringing it under control, and it is by educating them that this is to be done—educating them from girlhood up. It is becoming so common in society that every one, even school-girls and school-boys know about it; and it is a very false morality that would keep us from teaching them the dangers it abounds in, when ignorance on their part is out of the question. Parents and teachers, who are the natural guardians of their purity, seek to keep them in darkness and ignorance on these and kindred subjects, while the newspaper advertisements, the careless remarks in conversation, or those associates of their own age, particularly in schools, who have been contaminated by the ordinary treacherous teachings on this point, and in turn contaminate their fellows, are continually enlightening them with a false and deceitful light—one that too often leads by a sure path to destruction. It is chiefly at the adolescent period that the deepest mental impressions are made—those that give shape and direction to the evolution of the character in after years; and this is the period that parents and teachers leave open to the insemination of such erroneous opinions, which once planted are apt to prove ineradicable by any amount of subsequent instruction. It is a very common belief among women, and a very convenient one for abortionists to foster, that previous to quickening the fœtus does not possess life, and that therefore a miscarriage produced before that has

occurred is not criminal. This is one of the main errors to be combatted, and fortunately it is not usually difficult to do this. But that other important consideration, viz.: that not merely does abortion injure the woman upon whom it is practiced, but that the children born subsequently are apt to come into the world affected by the shock to the mother from the previous miscarriage; this latter consideration is one practically unknown among women and ought to be taught them. In the warfare against this bad practice the clergy can be of material assistance, many women being influenced by them who are not to be reached otherwise. Respectable physicians ought to make it their business to explain to their clients, both male and female, the facts and prospects in this matter; clergymen ought to take it in hand and assist in their holy office; and in every possible mode the weapons of truth should be used against the dangerous abomination, for at its present rate of growth it is becoming in this country a national sin, and, unless checked, will surely bring a national retribution.

Educating Women in Medicine.—We notice that ten ladies have been matriculated in the "Medical Department of the University of Edinburg." The question of the propriety of educating females and males together is one that to-day is being discussed in all countries, but more especially in America, and certainly, as yet, no satisfactory conclusion has been arrived at. Restricting it to their education in our medical colleges it would seem to us that no sane mind could entertain it for a moment. The reasons why males and females should not be educated together in medicine, particularly anatomy, obstetrics, etc., are obvious, and were discussed at length before the American Medical Association at its last session.

Miscellaneous.

ART. XIV.—*Report of the meeting of the San Francisco Medical Society of January 9th,* 1872. *Interesting discussion on the "Fee Bill." Election of Officers for* 1872. *Presentation of Pathological Specimens.* Reported by W. F. SMITH, M.D.

Quite a full and interesting meeting was held, and as matters of general interest to the profession were discussed, we present rather a full report:

The meeting was called to order by the President, and the minutes of the last meeting (the last in 1871), were read. In looking over these we find that a report of the Treasurer and Finance Committee shows that a balance of $347 constitute the society funds. The society ordered $300 to be placed in some savings bank. One item of last year's expenditure was $200 sent the sufferers of the profession at Chicago. A committee, appointed at a previous meeting to draw up a Fee Bill, reported. The bill was read *in extenso*, and subsequently each item was discussed and adopted or amended according to the will of the majority. The following is the result, which modified bill was referred back to committee with instructions to present it at the next meeting (the present one), for final adoption as a whole:

Fee Bill adopted by the San Francisco Medical Society, and by the Society of German Physicians of San Francisco:

One Visit	$2 50 to $ 5 00
One Visit after 10 o'clock P. M. or before 7 A. M.	$5 00 to $10 00
First Consultation Visit	10 00
Subsequent Visits in Consultation	5 00
Attending Physician to charge same as Consulting Physician.	
Special Examination in Office	$3 00 to $10 00
Obstetrical Cases	$25 00 to $50 00
(With Instruments, double.)	
Surgical Cases according to agreement.	
Vaccination	$2 00 to $5 00

Resolved, that we, the undersigned, pledge ourselves to conform to the foregoing Fee Bill.

It was ordered that 10,000 copies of the above Fee Bill be printed in such a manner that they might be appended to any ordinary bill, so that patients might test the correctness of charges made against them.

A committee of three members, Drs. Cole, Gibbons, Sr., and Favor, was appointed to make nominations for officers for the ensuing year.

After the above resumé of the work accomplished by the Society, the business of the evening was entered upon.

Dr. H. S. Baldwin, Librarian, presented his report on the condition of the property in his charge during the past year: 264 Vols. and Nos. of the various medical journals subscribed for and on hand.

Committee on memberships report the name of W. G. Wayman, graduate of Bellevue, New York, as candidate, Drs. Cole and Bates, vouchers.

Dr. Cole asked how a candidate for membership was expected to present his credentials, and after considerable discussion, sufficiently wide of the mark, it was discovered that he might present them to any one individual of the committee on memberships, who would be responsible to the Society for the report.

A communication from Chicago was read, acknowledging the receipt of the draft sent as per order given at a previous meeting, and cordially thanking the Society for that expression of their sympathy and fraternal kindness.

Dr. Morse remarked, as member of a committee appointed at a former meeting in regard to the establishment of public dispensaries for the benefit of the city poor, by Act of the present Legislature, that the committee had called upon Assemblyman Grey, who has in his possession the proposed bill to establish a Board of Public Works. Mr. Grey seemed to be favorably impressed with the wishes of the Society, and it was found that by the following simple additional clause, the object of the Society might be accomplished, viz: "Provided that a sum not less than $8,000 per year be appropriated by the Board of Supervisors for the purpose of aiding this branch of public charities."

Dr. Regensberger now re-read the "Fee Bill," the committee having changed only the wording of the resolution which is appended, so that it stands as read: *Resolved,* that we the undersigned *have agreed* to conform to the foregoing bill, instead of using the words "*have pledged ourselves, etc.*"

Dr. Morse moved that the caption of the bill be changed so as to express or imply the fact that the prices mentioned were to be considered the minimum fees. Motion seconded by Dr. Cole. Dr. Gibbons objected to this change and suggested that a note be appended to the effect that the above bill was not intended to govern specialists. Dr. Morse withdrew his motion in favor of Dr. Gibbons' suggestion and Dr. Gibbons' motion was substituted.

Dr. Haine wished to know how the bill was to be modified in cases of calls being made outside the city limits, and stated that he sometimes charged $100 or less for such a visit, according to the *circumstances.*

Dr. Gibbons said he thought Dr. Haine had answered his own question admirably, and that no fixed modification could be made to cover such cases.

Dr. Whitney said, that if it was understood that the Fee Bill included the maximum and minimum fees to be charged he would object, and would not place his name to the bill, as he wished the privilege of charging as much as he thought proper in certain cases, when the abundant ability of the patient allowed it.

Dr. Morse hoped that the society would *construe* the bill so that it might be understood not to provide a maximum fee.

Dr. Cole remarked that if the bill were allowed to remain as it is, in case of litigation, the Courts would consider *it* a ruling, and would not allow the collection of fees any greater than those specified, though he, as a specialist, being provided for, ought to say nothing.

Dr. Gibbons feared the bill would be abolished by extended discussion; it had given satisfaction elsewhere, and he could not see the objections mentioned by the gentlemen. The bill was intended to protect the patient as well as the physician, and that in special cases the fee might be agreed

upon, irrespective of the provisions made, and simply in accordance with the liberality and generosity of the patient.

Dr. H. Gibbons, Jr., presented the following as the additional clause: "This bill is not intended to govern specialists or cases of extraordinary services." Seconded.

Dr. Morse thought that both Drs. Cole and Gibbons were wrong; he had known of cases where large and extravagant bills had been allowed by judges, when adjudged to be correct by experts, without regard to any fee bill.

Dr. Whitney did not disagree with the bill as presenting the minimum prices, but that he had patients who never expected him to leave the house, after having attended to an obstetrical case, without a fee of $100; and he did not wish the society to declare, by its action, that he had done wrong in receiving it. He did not expect to sue in many cases; that although he held several judgments, he had never collected, in more than one instance, after suit. Physicians, as a rule, earned all they received.

Dr. Cole stated that there could not be two minimum prices. He never attended an *accouchement* for less than $100.

Question was called for as to the additional clause, and the motion was carried in the affirmative.

Dr. Morse suggested that the Fee Bill be printed in such a manner that they could be appended or not to any bill sent for collection.

The President, Dr. Dean, wished to know if the society would make any provision for cases of daily surgical treatment, such as the introduction of the catheter. Some members of the society thought such cases should be charged as per visit, or an agreement should be made with the patient.

Dr. Cole moved that the bill, as amended, should be adopted as a whole. The motion was carried.

Dr. Gibbons moved that the subscriptions to medical journals should be renewed for the ensuing year. Also carried.

Dr. Cole, as Chairman of the Committee on Nominations, reported the following ticket:

For President.....Dr. J. F. Morse.
1st Vice-President.....Dr. W. T. Bradbury.
2d Vice-President ..... Dr. P. Chamberlain.
Secretary.....Dr. H. Gibbons, Jr.
Corresponding Secretary.....Dr. W. A. Grover.
Treasurer.....Dr. A. G. Soulé.
Librarian.....Dr. James D. Whitney.

Committee on Membership.
Drs. Holbrook, Johnson, Blach, C. T. Deane and Haine.

Committee on Finance,
Drs. Favor, Baldwin and D. B. Dean.

Committee on Publication.
Drs. Gibbons, Jr., Provost and Soulé.

Executive Committee.
Drs. Cole, Buffum and Bates.

Dr. Morse said that he found it extremely difficult to express himself as to the prominence given to his name on the ticket. He felt both surprise and pleasure, and thanked the members most cordially for their consideration and confidence, but wished that the society would permit him to decline. There were certain reasons why he thought it his duty not to undertake the responsibility of the office. Some other member, who had not yet been honored by the society, but who had been faithful to the interests of the advancement of the profession (and he remarked that there were several on the society's roll), might be placed at its head.

Dr. Cole remarked that Dr. Morse's name had been placed first by unanimous agreement, and from a conviction of his eminent fitness, and, that if it should not be considered impertinent, he would make a motion that the Secretary cast the society's vote for Dr. Morse as President. Motion was seconded and carried.

The other names on the ticket were elected in the same manner in the order in which they were presented.

Dr. Bently presented three very interesting pathological specimens, the two first illustrating the conditions found in typhoid fever and the class of enteric disease. He remarked that this subject had been much studied by eminent patholo-

gists, and that a number had considered the disease due to specific poison. That he had been continually searching cases to elucidate the matter, and that these were the first which had given him any satisfaction, and that from the appearances here presented he considered perforations of the intestines to be due to the existence of parasites. In each of these cases some of these parasites had been found floating in the fluids contained in the intestinal canal. The ulcerations generally exist near the ileo-cæcal valve; but some specimens show, as does one of these before us, that they may exist 20 in., more or less, from the usual site. Here the Doctor referred to a number of authorities on the subject.

One of the cases presented had been convalescent, and the attending physician had considered him out of danger. The strictest rules for the diet had been enjoined. The autopsy revealed great emaciation, but cicatrization of the ulcers in the intestinal walls had been commenced. On examination of the stomach the skeletons of two oranges were discovered, which had undoubtedly been the cause of the perforation and of death.

The third case was that of an old man, *æt.* 80, who had fallen down stairs and expired. From the manner of his death it was considered to be a case for the coroner, and the autopsy was made under the impression that an aneurism would be found. But the old gentleman had actually died of a broken heart. The rupture was found in the anterior wall of the left ventricle. The cleft was well defined, and might be mistaken for a wound made by a sharp cutting instrument. The Doctor remarked that fatty degeneration, or, perhaps, an atheromatous condition, induced by age, had caused the friability of the tissue of the heart and arteries, which rendered the accident possible; that it might be considered a provision of nature to stop the animal machinery, which had worn out, or run down with age.

ART. XV.—*Proceedings of the Alameda Co. Medical Association, Oakland, January* 8, 1872.

Present—Dr. Cushing, President; Drs. Babcock, Bolton, Carr, Davison, Hanson, Holmes, Kittredge, John LeConte, Joseph LeConte, Pinkerton, Sherman and Van Wyck.

The minutes of the last meeting were read and approved.

The Committee appointed at the last meeting on a memorial to the Legislature, asking for the passage and enforcement of stringent laws in regard to criminal abortions, reported, through its chairman, Dr. Van Wyck, presenting a memorial and draft of an act which it was thought would tend to diminish the practice and ensure the punishment of the guilty.

On motion of Dr. Pinkerton, seconded by Dr. John LeConte, the report was accepted, the Secretary directed to transmit it officially to the county representative in the Legislature, and the committee was discharged with the thanks of the association.

The committee appointed at the last meeting on the Revision of the Constitution and By-Laws, and Fee Table, made two reports through its chairman, Dr. Pinkerton. The proposed amendments and alterations to the Constitution and By-Laws were read and notice given of intention to move their adoption at the next meeting. The committee was continued.

The report on Fee Table was read, and on motion, each clause was voted on separately. The discussion was lengthy, and finally, on motion of Dr. Kittredge, seconded by Dr. Van Wyck, the report was adopted, the fee table accepted as presented, and the committee discharged from further consideration of the subject.

FEE TABLE.

MISCELLANEOUS.

For each visit in city during day time	$3.00 to $5.00.
For each visit in city during night time	$5.00 to $10.00.
For visits over three miles from town, per mile, additional	$1.00 to $2.00.
For a visit in consultation	$5.00 to $10.00.

The attending physician shall, in all cases, notify the family of the customary fee, which should be paid in advance. If not then paid, the consulting physician shall send his bill to the attending, to be collected by him. The attending physician may also charge the consultation fee instead of the ordinary visit charge.

For advice at house or office..... $2.50 to $10.00.

In special cases the fee shall be $10 00 *in advance.*

For an opinion involving a question of law..... $50.00 to $100.00.

In case of an opinion involving special study or experimental investigation..... $100.00 to $500.00.

OBSTETRICAL.

Ordinary Midwifery cases..... $25.00 to $50.00.

For attendance where instrumental interference is required it shall be considered obligatory to make such additional charges as in the discretion of the practitioner the extraordinary detention or service shall seem to demand.

Should either the child or placenta be born before the arrival of the accoucheur the whole fee shall be charged.

If, in any case of labor, a second physician is called in consultation, and assists during labor, the attending and consulting physician shall each be entitled to the full fee for attendance.

SURGICAL.

For operations recognized as capital, according to the importance of the case.....$100.00 to $500.00.

For operations of secondary importance..... $25.00 to $100.00.

For minor operations..... $5.00 to $25.00.

After surgical operations, subsequent visits shall be charged as in ordinary cases of attendance.

GENERAL.

With regard to all the above fees, the association declares that while it is the duty of the profession to recognize the claims of charity, so also in cases of extraordinary service, detention or attendance, or when for any reason the case is one of unusual importance or responsibility, the charge should be proportionally increased; and the duty to make such increased charge shall be obligatory upon the practitioner.

Dr. Sherman, Treasurer, read his report, it being the close of the fiscal year. The finances of the association were in a promising condition, and the report was adopted.

Dr. Davison presented a communication requesting to withdraw from the association on account of removal of resi-

dence from the county. He being in good and regular standing, the request was unanimously granted.

On account of the lateness of the hour, Dr. Bolton, who was appointed to prepare a paper for the consideration of the members, was requested to hold it over until next meeting.

The amendment to the Constitution, proposed a month ago, providing for the election instead of appointment of censor, was then adopted.

In the general order of business the following were unanimously elected as officers for 1872, viz.:

President—Dr. Van Wyck.
Vice-President—Dr. Sherman.
Secretary—Dr. Babcock.
Treasurer and Librarian—Dr. Cushing.
Board of Censors—Drs. Pinkerton, Kittredge and Fox.

On motion, the association adjourned to February 5, at 8 P. M., first partaking of a collation at the invitation of the retiring President.

H. P. BABCOCK, Secretary.

ART. XVI.—*Professional Cards.*

We once knew an intensely practical, classical scholar, who separated each work into its original roots, literally construed every sentence, analyzed each expression and stripped the romance from everything not thoroughly practical. We met him in the country before the days of modern conveniences in houses; he had partaken too copiously of fruits and wanted medical aid; intimated that it was a case of simple diarrhœa, and were about to suggest a remedy when the patient thoughtfully remarked: "Diarrhœa; diarrhœa is derived from two Greek words, which signify, as follows: *dia*, meaning through or across, and *area*, the back yard!" We collected strength to give him something to prevent his too frequently going across the back yard, and left him fully convinced of the justice of his reputation

for accuracy and ultimate analysis. That man is wanted over in a rural suburb of this metropolis where a card appears in a daily paper to the effect that an individual desires to declare his professional platform. He gives his name, office hours, and school of practice, and adds: "I use no remedies that other Homœopathic physicians know not of. I use no remedies, the pathogenesis of which I am unacquainted with. I have no drug (secret) that is a sure preventive of small pox!" The first statement is positive and assuring. If he gives out, any other of his faith can commence where he left off and go on with the same remedies of familiar acquaintance until, with no sudden jar or interruption, either his daily business or the family undertaker can claim the once sufferer. The second assertion is somewhat obscure but refreshing. "Pathogenesis" *is* good. It is of immense practical utility that the lay public should fully appreciate it as a curative agent, but we fear that it is somewhat of an allopathic dose for a delicate constitution unless when "triturated always in the same direction, so as not to lose its dynamical potency," its effect will be satisfactory. As for the last sentence, the "Dr." places himself square on the record as no quack—that is, from a homœopathic standpoint! The above extract from the "card," reminds us of a sign recently seen in a hotel, not far from where resides the first mentioned luminary. On the door of a "Dr.", (a "graduate of the Canadian Medical Board," and who "has had twelve years practice," as we read from his card,) a door to a room on third floor, back, on a conspicuous black sign we read, "Doctor's Boudoir. Ladies attended at their residences." "Doctor's Boudoir." We suppose this to be intended for professional courtesy; the inhabitant of that room evidently intended that all doctors calling at that hotel should make themselves perfectly at home therein, and use comb, brush or other conveniences before making their calls in the house. It must have been a free dressing-room, but we fear the liberty was sadly abused, for, on change of quarters shortly after, the sign came down and there remains no longer a "Boudoir" for doctors in that house. Yet more, in total disregard of

the claims of masculine women, none could come in. (How in regard to female, Dr. ?) "Ladies attended at their residences." On reflection, this seems perfectly proper! We do not think tho' that the ladies were very eager to be attended anywhere, for on removal of sign the prohibition was removed as far as regarded men, a non-professional, and the men now are supposed to have equal rights with their fellow feminine voters. So we conclude that, from the removal of the sign the "Boudoir" had been taken advantage of; and, as far as ladies are concerned, it could not have been a good week for doctors "of twelve years practice;" consequently that the proprietor has returned to the customs of the "Canadian Medical Board," and practices indiscriminately on either sex—when they come.

In how many localities can we see similar cards or signs, and what is the first suggestion? It is that the professional acquirements and principles of the author or supporter of such are at once known. Is there any surer way of branding one's self as a —? Now is the regular profession entirely free from all cause for blame in this matter? Where in any large community does one see a highly educated, dignified or capable medical man publish himself? To the above we make a single exception, that of a doctor in the country who inserts his single card in the country paper for the edification of the farmers or miners, and we do not approve of this; it is unnecessary, inasmuch as brains will be sought for when recognized. What is the result, even with an earnest desire not to overstep the bounds of the strictest ethics? It is that the next man does the same, and adds, "in at all hours of the night;" the next, "physician, surgeon and accoucheur;" the next, "cures chronic diseases;" the next, "particular attention paid to private diseases;" while another, more to the point, adds, "bodies carefully embalmed;" and all refer to some doctors in the nearest large town. So on *ad infinitum*, until from a simple card giving name and residence one comes by almost insensible gradations to glaring quackery, or at least, irregularities. Each, in the endeavor to attract the eye of the verdant, adds one more large word,

until the would-be patient looks for the most unintelligible word to get the most science, and pays for "pathogenesis" rather than take something simple. Now look to the advertising columns of our country papers in particular, and under the heading of "professional" or "medical," (God forgive the deceit) we read thus:

"Dr. John Smith,
Office and residence —&c."

"B. Blowhard, M. D., Homeoquackist,
Ashantee University."

"Cabbage Head, M. D., D. F.,
Thompsonian." (Herbivorous! Ed).

"Dr. Deep Water, Hydropathist;
Member of Baptist Church."

"Dr. Cure All, Eclectic;"
and so on, *ad nauseam.*

All being in the same list, the inference naturally is that "birds of feather," &c. If a doctor removes his house or residence, a notice to that effect is proper, but no more. It looks like a bid for business, and in our estimation is as unprofessional and undignified as certain clauses in the new fee table of the San Francisco Medical Society, where all surgical operations are "according to agreement," thus giving to the economically disposed patient the privilege of holding an auction over his about to be amputated limb, or, (more properly rendered) to each competing surgeon a chance to sell his brains and dexterity at the lowest bid.

The winning animal in a donkey race is the last one in. It is the least capable who takes the prize!

ART. XVII.—*The following Report embraces the number and character of diseases and injuries which have occurred in the County Jail and City Prison during a period of ten months, viz.: from 1st of March to December 31st,* 1871.

COUNTY JAIL.

Anæmia	4	Gleet	27	Phthisis Pulmonalis	8
Amenorrhœa	9	Herpes	11	Rheumatism	39
Asthma	3	Hernia (inguinal)	2	Remittent Fever	2
Ascites	1	Hypertrophy of Heart	3	Rupia	1
Adynamia	2	Hemorrhoids	5	Spermatorrhœa	10
Alcoholism	1	Intermittent Fever	43	Stricture Urethra	11
Bronchitis	150	Ictérus	4	Syphilis Primary	26
Constipation	802	Icthyosis	1	Syphilis Secondary	78
Catarrh	10	Insanity	2	Syphilis Tertiary	6
Conjunctivitis	13	Lumbricoides	1	Syphilitic Rheumatism	2
Cystitis (chronic)	1	Leucorrhœa	2	Sycosis	1
Contused Wounds	3	Lymphadenitis	11	Suicide (hanging)	1
Dyspepsia	13	Masturbation	4	Tonsillitis	21
Dysmenorrhœa	1	Myopia	1	Typhoid Fever	1
Delirium Tremens	5	Menorrhagia	1	Tænia Solium	1
Diarrhœa	20	Neuralgia	11	Ulcers	19
Ecthyma	6	Orchitis	3	Ulcerated Tonsils	3
Epilepsia	6	Punctured Wounds	3	Ulcerated Urethra	6
Eczema	1	Pleurisy	2	Gunshot Wound	1
Furunculas	6	Paronychia	2	One case of Phthisis died in the jail.	
Gonorrhœa	73	Paralysis	1		

Daily average number of Prisoners 223

CITY PRISON.

Alcoholism	1	Died in Prison	Lacerated Wounds	2	
Bronchitis	6		Laxation	2	
Burns	1		Mayhem	4	
Contused Wounds	82		Masturbation	1	
Constipation	2		Punctured Wounds	10	
Concussion of Brain	1	Died	Phthisis Pulmonalis	1	
Delirium Tremens	12		Puerperal Peritonitis	1	Died in Hospital
Dyspepsia	1		Penetrating Wounds	3-1	Died in Hospital
Epilepsia	2		Paralysis	1	
Fractures	7-1	Died in Hospital	Scald	1	
Furunculus	1		Syphilis Secondary	2	
Gunshot Wounds	16-4	Died	Subluxation	1	
Gonorrhœa	6		Syphilitic Rheumatism.	1	
Gleet	1		Stricture Urethra	1	
Hemorrhoids	1		Tetanus	1	
Hæmoptysis	1	Died	Ulcers	2	
Incised Wounds	21		Ulcerated Rectum	1	

REMARKS: The first subject that attracts attention in the above report, is the difference in the number of cases of diarrhœa and constipation; but the matter is very easily explained. The prisoners are crowded eight, ten and sometimes fifteen, into a cell—which was designed to contain two or four—badly ventilated, want of pure air and exercise, too much solid food, and an unlimited supply of tobacco—here we have all the causes necessary to produce constipation. I have repeatedly called the attention of the Board of Supervisors to the subject, but so far, without effect.

OVARIAN TUMOR,

Mentioned in the case reported by DR. ANDREI.

Page 85. Weight, 30 lbs.

THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR FEBRUARY, 1872.

Surgery.

ART. I.—*The Rational Treatment of Blennorrhagia.* By J. C. VAN WYCK, M. D., of Oakland.

So much has been written upon the history, etiology and treatment of blennorrhagia, that little, if anything, new or instructing remains to be said, except what relates to the treatment of this, unfortunately too common, disease. Among all the ills to which flesh is heir to, I am sure there is not one which has been the subject of so few mutations in treatment within twenty years past, or has benefitted less by the adoption of rational, rather than empirical procedure. That blennorrhagia—as the term is generally accepted—unconnected with urethral chancre, is purely a *local* affection no one will, I presume, for a moment deny. What, then, should be the course adopted for its treatment and cure? Experience has taught me that topical applications alone are by far the most certain and speedy; and I take issue with those who recommend a constitutional course, believing it altogether unnecessary and useless so far as the urethral inflammation is concerned. Authors differ widely as to the character of topical applications, the utility of which is acknowledged almost universally. The abortive

treatment, when first suggested and tried, had many warm partisans, and still is practiced and relied upon by some practitioners. Experience has proved that strong injections of Argent. Nit. to be not only useless, but in many instances positively injurious, and the profession now use it, as well as preparations of copper or zinc ordered in the form of injections, in comparatively small quantities. Experience has long since taught me that in the large proportion of cases which come under the notice of medical men, the period has passed when the abortive treatment would be available, and the resort to it proves not only valueless but absolutely pernicious. Yet when a case presents in the early part of the first stage, it is by far the best mode of treatment known *if* followed by the use of proper astringent and anodyne injections. Copaiba and cubebs in some form or other have always held the highest rank in the scale of remedial agents in this disease, and no one will for a moment presume to deny their beneficial effects. I surely do not, yet I am positive in asserting that either or both can be dispensed with rather to the benefit than detriment of the case. I see no reason why a patient should be made to swallow nauseous drugs which tend to oppress and derange the stomach, when an equally good—yes, better—end can be attained by topical applications which do not have to pass through nature's laboratory before becoming beneficial. The use of injections is regarded by many practitioners as positively injurious, attributing to them the Orchitis, which is not an infrequent result of the disease; whereas had the injections not been supplanted by constitutional or other ineffective modes of treatment, the disease would have been either cured or so checked that Orchitis, a natural sequence of the specific inflammation, would not occur. Somewhat more than a year since, dissatisfied with the result of all the various means previously used, I determined to make use of a remedy of comparatively recent date which had been presented to the profession as a valuable agent in the treatment of numerous affections, and more particularly those affecting the mucous membranes, *viz.:* Carbolic Acid. Believing, or at least hoping, that from its highly antiseptic

properties it would, in connection with some mild astringent, convert the irritating discharge into a comparatively harmless one, and at the same time act as a sedative to the inflamed surface.

The first case which presented had been fully developed some ten days; (too long a period, in my judgment, for the abortive plan to be other than useless, if not deleterious.) I ordered the following to be used as an injection to the amount of half an ounce three times a day:

"℞. Ac. Tannic, ℈j; Ac. Carbolic, ℈ij; Glycerinæ, ℥j; Aquæ pur., ℥vij; *M.*"

This patient was compelled, from the nature of his avocation, to be constantly on his feet, exposed to cold and wet, he being a carriage washer. A few applications served to remove entirely the severe burning sensation on urinating, and change very decidedly the character and quantity of the discharge. Before finishing the second bottle he declared himself perfectly cured, and had no return of an unpleasant symptom or sensation. From the first day he improved so rapidly and satisfactorily that I did not deem it necessary to adopt any other measures for his relief.

Since that time I have treated eight cases in all of blennorrhagia, and my partner, Dr. Cushing, has had three patients suffering with this affection under his care. Two of those treated by me were seen within twelve hours after the discharge was noticed. In each of these I adopted the abortive treatment, using a small piece of sponge attached to a wire and passing through a silver tube, which I introduced some two inches within the urethra and thrust out the sponge previously saturated with a solution of Argent. Nit. grs. x, to the ounce of water, with which, by a rotatory movement, I freely swabbed out the canal at least two thirds of its extent. I then ordered the following to be used as an injection after the expiration of a few hours:

"℞. Zinci Sulph., ℈j; Ac. Carbolic, *gtt.* xx; Morph. Sulph., *grs.* iij; Glycerin. ℥j; Aq. pur., ℥vij; *M.*" Use as an injection three or four times daily."

These eleven cases, treated in this manner, are convincing proof to me that Carbolic Acid, in combination with

astringents and anodynes, is as near being a specific in uncomplicated cases of blennorrhagia, as any remedy believed to be such in the domain of the Materia Medica; and so firmly am I convinced that to it alone is to be attributed the very gratifying results which have marked every case in which it was employed, with the next patient who comes under my care I shall use the remedy simply diluted with distilled water.

This remedy may be nothing new to the profession at large; but I have yet to see any published account of its use, and am not aware of its being used except by those to whom I mentioned the results of a treatment I adopted as an experiment, which has succeeded beyond my most sanguine expectations.

ART. II.—*A Case of Gunshot Wound, reported to the Alameda County Medical Association.* By E. TRENOR, M. D.

On the 29th of August, 1871, at 9 P. M., I was called to see a man who had just been shot. Found the patient, A. E., *aet.* 25, grocer, married, native of Germany, suffering from the shock of a gunshot wound which had been received ten minutes before I reached him. He was pale, faint, bathed in cold perspiration, features pinched, mind clear and collected, pulse 48, small and faint. Complained of intense pain in epigastric region, where, on examination, a wound was found, the aperture of entrance of a conical pistol bullet from a half inch Smith & Wesson revolver. There was no external hemorrhage. A second wound was found made by the passage of a ball from the same pistol through the last phalanx of right thumb, but not touching the bone. This latter wound was of small consequence and gave no subsequent trouble, healing readily with cold water dressings. On account of the intense epigastric pain,

*m*xv Magendie's Sol. of Morphine was injected hypodermically at the point of the right shoulder, and in ten minutes the pain was relieved so as to be easily borne. Vomiting then occurred twice, the matter ejected being partly-digested food, mixed with fresh blood; about 1 oz. of blood in all. The epigastric wound was situated an inch and a half below the point of the ensiform cartilage and one-eighth of an inch to the left of the median line. The probe passed horizontally backward and a little to the left for a distance of an inch and then stopped; the attempt to penetrate deeper was not persisted in, nor any force whatever employed. Examination posteriorly showed a solid body between the 11th and 12th ribs, three inches to the left of the median line and situated at some depth beneath the skin. This was supposed to be the bullet, but as the patient was now quiet, entirely free from pain, and comfortable, it was thought best not to undertake its removal at present. Cold water dressings were ordered to the wound, no food or drink to be taken by the mouth, but 2 oz. beef tea (from Liebig's extractum carnis) and ½ oz. whisky per anum every second hour, to which to be added tinct. opii gtt. xl. in case of supervention of abdominal pain, and repeat every second hour until the pain was relieved. Perfect quiet enjoined. The bowels had moved naturally in the afternoon before the wound was received.

August 30th, 5 A. M. Patient had passed a quiet, moderately comfortable night. The tinct. opii had been given per anum every second hour on account of return of the pain, which was now diffused over the entire left side of abdomen, with tenderness on pressure, and some tympanites. Pulse 85, rather small and tense. Respiration 20 per min., pupils contracted and responding but slightly to alterations in amount of light. Had passed about 4 A. M. a small quantity of urine highly colored with blood (as shown by microscopic examination). The patient was seen four times this day. Condition at last visit, about 10 P. M., nearly same as above, except that the pulse was 98, respiration 18, pupils decidedly contracted, some increase of tympanites, tenderness diffused over the whole of the abdomen.

Only about 8 oz. of urine had been passed, of the same bloody appearance. Continue same treatment with addition of warm flaxseed poultices over the whole abdomen.

August 31st. The ball, a conical one, was removed posteriorly by a T shaped incision in the location above described. It was found at a depth of three quarters of an inch, and under it was a fragment of the heavy linen undershirt worn at the time of reception of wound, having evidently accompanied the bullet in its passage through the body. The linen fragment measured about 1x¾ ins. No hemorrhage followed the removal.

From this time up to September 17th, the progress of the case was steadily satisfactory. The posterior wound by incision healed by first intention. The administration of beef tea, laudanum, and whisky per anum every second hour was kept up, nothing being allowed to be swallowed for the first five days, then a little water occasionally given by the mouth. The bowels moved naturally for the first time September 5th, a week after the reception of the wound. The amount of urine passed gradually increased and the character improved, so that at the end of twelve days (by Sept. 10th) it was natural in quantity and character. Tympanites remained the same for about a week, then gradually diminished. Abdominal tenderness began to diminish by September 7th, and little by little became less and passed off. Pulse fell to 80, became softer, although still somewhat quick and tense. The dose of laudanum was diminished from September 3d, at the rate of 5 drops every day until September 9th, when it was kept at 10 drops each three hours; beef tea and whisky also every three hours, but the amount of beef tea was increased to 4 oz. each dose. September 14th, a little beef tea cautiously given by the mouth and found to agree well, and thereafter beef tea and panada were given by the mouth every three hours.

September 17th. I was sent for in haste. Found the patient blanched and extremely prostrated by a sudden free hemorrhage per urethram. He said that a sudden movement of the left leg had been accompanied by a sensation of something giving way at the point from which the ball was

extracted, then a flash of heat along the course of the left ureter, and the blood came pouring from the urethra. When I arrived there was a quart of blood in the bed-pan, no urine; and while I remained nearly another quart escaped from the urethra. Patient was restless, extremely prostrated, calling for water and exhibiting great uneasiness. I applied cold in the region of the kidneys and increased the laudanum per anum to 40 drops every two hours. The hemorrhage ceased by the bladder (and probably left ureter), becoming filled with a coagulum, the bladder being felt in the pubic region as a solid tumor as big as a large orange. Perfect rest in one position was enjoined. From this time on the only difficulty was in passing water until the coagulum in the ureter and bladder broke down and escaped with the urine. For three days, September 17th, 18th and 19th, the catheter had to be used frequently, the coagulum blocking up the internal orifice of the urethra, and also interfering with the contraction of the bladder, after which time urine was passed naturally, through frequently and in small quantity at a time, and tinged with blood until near the end of September. The amount of laudanum was gradually diminished, and stopped entirely by September 24th. Stimulus was continued in diminishing amounts up to September 30th, then stopped. Solid food was given for the first time September 22d. The orifice of entrance of bullet did not close until the end of September. By Oct. 1st, patient complained only of weakness, was able to sit up for an hour a day in a chair, took no medicine or stimulus. Bowels, kidneys and bladder acted naturally. There was no tenderness in the epigastrium or other abdominal region, nor posteriorly over either kidney. October 7th, he crossed over to San Francisco; has regained strength and remained well ever since.

In connection with the above case I would call attention to the following points: The patient was always a perfectly temperate man, had never been accustomed to use any alcoholic stimulus, nor tea, coffee nor tobacco. He was also a perfectly healthy man. The use of morphine hypodermically ensured its prompt action, without danger of loss by emesis. The stomach was probably, though not certainly, wounded

slightly, as shown by the hæmetemesis. The left kidney was undoubtedly wounded. It was probably situated a little higher up than is usual. A piece of the linen undershirt accompanied the bullet through the body, no doubt carried in front of the projectile, though on removal posteriorly the ball was first found and taken out, and the linen, discovered lying deeper in, was then extracted.

PROFESSOR DENEFFE, of Ghent, states (*Presse Méd. Belge*, November 19) that for more than two years he has employed a combination of camphor and bromine, which he thinks is entitled to general attention. The celebrated chemist, Laurent, showed that bromine will easily unite with camphor at the ordinary temperature, but that the product is slowly decomposed by exposure to the air. Mr. Swartz, Professor of Chemisty at Ghent, has shown that this body heated in a closed vessel is resolved into hydrobromic acid and a crystallized compound which is monobromied camphor (*camphor monobromé*), a body differing only from ordinary camphor by the substitution of an atom of bromine for an atom of hydrogen. It is a perfectly crystallized substance, fusible at 76° C. and boiling at 274°. At Professor Swartz's request, Mr. Deneffe has investigated the therapeutical properties of this body, and has found it to be an excellent sedative for the nervous system. He intends shortly to publish his cases in proof of this, and, in the present communication, furnishes one of these, in which excitement of the nervous system passing into true delirium tremens was effectually relieved. He prescribed it in the form of pills, seventy grains being made into thirty pills, of which one was given every hour until twenty had been taken. For three days longer from forty-five to sixty grains were given in the twenty-four hours, the quantity being diminished from forty-five to thirty grains daily for a week longer. The recovery was progressive and stable. (*Medical Times & Gazette*, Dec. 2, 1871.)

ERROR.—The first article under the head of obstetrics in our last number, written by Charles C. Lee, M. D., should have been credited to the "*New York Journal of Medicine.*"

Institutes and Practice of Medicine.

ART. III.—*The Miasmatic Diseases of California.* By J. CAMPBELL SHORB, M. D., San Francisco.

Several of these papers on the Miasmatic Diseases of California originally appeared in the columns of the *California Medical Gazette*, which suspended publication some months since. I propose to finish the subject in the WESTERN LANCET, and have determined to republish what has already been written, that the article from beginning to end may be as consecutive as possible. To some readers these articles are well known, to new subscribers they may be interesting, if not in imparting information, at least in directing attention to a most interesting field of inquiry. J. C. S.

Some ten years ago, we remember listening to the last lectures ever given by Dr. George B. Wood, at that time Professor of the Theory and Practice of Medicine at the University of Pennsylvania. In his brilliant and comprehensive remarks on the etiology of disease, we recall the very earnest manner in which he dwelt upon the necessity of watching carefully for periodicity in the various morbid processes, representing the frequency of miasmatic complication, and the ease with which the intercurrent trouble absorbed, as it were, the previous disorder, and became itself the prominent malady. He showed how rapidly the question of recovery was solved when this periodicity was fully recognized, how lingering the progress of a case, its often fatal termination, where from inattention or ignorance the medical attendant failed to discover the real source of mischief.

The lesson has never been forgotten, and professional experience has daily furnished us with strongest evidence of its value.

It may be urged, we are writing on subjects with which the whole respectable profession are perfectly familiar; that we are dealing with the most elementary truths of medical practice, and that our remarks, which a century ago would

have been more or less appropriate, are, in these more enlightened days, positively useless. But in medicine, as in every other art of science, we learn by repetition, and this general truth explains away in part the force of the above objection, which, we believe, is more fully removed by reflecting on the frequency so often observed, with which many excellent practitioners neglect to avail themselves of the advantages flowing from a practical knowledge of the simple truths we propose to consider in the following pages. The importance of these truths we hold to be of a very high order everywhere, but in this city and in many portions of this country it can scarcely be overrated. *Miasmatic* disease, in forms more or less modified, is the disease of the country. We have noticed its constant occurrence everywhere; in Oregon and along its seaboard down to the extreme southern counties of California; on the coast and in the interior, everywhere. Sometimes it appears in characters about which there can be no mistake; at other times it is masked by some intercurrent morbid process, or is in itself more or less obscure in its peculiar manifestations. Careful examination, even in doubtful cases, seldom fails to reveal the true nature of the malady, and point the way to speedy and successful treatment.

Not many years ago, miasmatic disease was supposed to reside in fixed geographical limits, growing out of peculiar agencies there existing, occurring at certain seasons of the year, under some atmospheric conditions generally recognized as necessary preludes to its evolution. It was regarded as a very systematic kind of distemper, always ushered in by the same symptoms, and marked in its progress and termination by characteristics which were found associated with it from the day it was first described in medical literature. As observation extended, as medical records multiplied and were compared, and professional experience became more catholic in its diffusion, miasmatic disease was found to have enlarged its boundaries; it was not so localized in its visitations, and in many places once deemed remote from its influence, it began to intrude its unwelcome visage.

Two very apparent and powerful causes seem to be concerned in the more extensive distribution of the disease. First, the changes, which are constantly taking place on the surface of the earth in obedience to certain physical laws, develop conditions favorable to the propagation of the disease. Second, the spirit of progress, under the inspiration of which cities are built and forests cleared, mountains leveled, valleys filled up, rivers spanned, and the waste

places of the land made to blossom with wondrous harvests, has unwittingly opened up new fields for the more extensive growth of this distemper. Rivers have been dammed and countries overflowed which before were dry and healthy; water courses have been taken from their native channels and carried where human industry demanded their busy currents; the axe has felled the forests which kept the disease at bay; and the plow has turned up the earth, dry on top, while the subsoil, pregnant with animal and vegetable matters in a decomposed state, has poured in deadly volumes its pestilential exhalations into the atmosphere. Then man has steadily marched from the rising towards the setting sun. The tide of emigration has been pouring its multitudes into the new regions of the West, and the unexplored fields wherein the foot of man had never before rested, pleasing the fancy of the way-worn emigrant, became the sites of dwellings and of towns, and the sluggish river and the deadly marsh near by offered no obstacle to the development there of the industrial interests and the rapid growth of these new domains. While the spirit of progress has been carrying man into pestilential regions, his genius has been busy at work devising means to render the unfavorable conditions surrounding him innocuous; and the discoveries and improvements of science, carried by his industry into practical effect, have already achieved magnificent results. Much yet remains to be done, and if the past be any earnest of the future, we may wisely conclude that as time goes by science will gain still more signal victories over pestilence, until the latter be ultimately exterminated.

Coincident with the discovery of the diffusion of miasmatic disease came the more intimate acquaintance with its various forms. As the means of diagnosing it improved, and the knowledge of these means became more universal, it was detected in strange and unusual garbs, manifesting certain eccentricities of invasion and duration which at an earlier period would have expelled it from the classification of paludal disease. Other morbid processes than fever were discovered growing out of the causes which developed the typical disease. These were the various neuralgic troubles, at times scarcely amounting to positive discomfort, and of short duration; at others, reaching an intensity of agony seldom seen in the whole range of human suffering, and prolonged for months, even years; hemicrania, brow ague, intercostal pains closely allied to the rheumatic affections, and the whole family of disease to which the general term neuralgia has been applied.

All of these morbid processes were more or less clearly

marked with that periodicity, taking cognizance of which has led the profession to such wonderful successes in the treatment of this form of disease. Many revolutions have taken place in the various settled opinions in reference to the origin of miasmatic disease. The first, probably followed close on the discovery that it could occur in situations where no reasonable suspicions could be entertained of the existence of paludal poison. It was found at times, commencing as far back as the sixteenth century, in the various large cities of Europe, and in particular portions of these cities deemed the most healthy by the profession, and where the most patient search, conducted on erudite principles, failed to reveal any tangible cause for its occurrence. The exclusive marsh origin was extensively discussed and finally abandoned, failing as it did to explain many of the mysteries connected with the presence of this disease. The late cryptogamic theory, though brilliant, is destined, we believe, to have a meteor's existence and disappear forever. In all parts of the world where the study of medicine is prosecuted with a zeal and intelligence commensurate to the general inquiring spirit of the age, the question of the origin of this disease is receiving a vast deal of attention. It may be years before it is definitely settled, it may remain forever beyond all human ken, but we cannot believe that all the labor spent upon it will be entirely without fruit. Failing to demonstrate the source, it will have added many valuable facts to our sum of knowledge on the subject, and definitely fixed the treatment for it and its associate maladies for all time.

In reference to what is established regarding the etiology of this disease, a distinction must be drawn between miasmata and malaria. By common consent of medical writers, the term miasma is applied to that form of pestilential exhalation which arises from the stagnation of fresh water over animal or vegetable matter in a state of decomposition. It is marsh poison in a word, and is the more general of the two terms; malaria being used to denote such poisonous matters as arise from more circumscribed or localized agencies, such as defective drains, choked sewers, foul sinks, badly-ventilated or over-crowded dwellings. Malaria is also used to denote the effect, being applied to that peculiar unwholesomeness of the air resulting from the admixture in it of the miasmatic exhalations.

By the earlier writers it was believed and taught that miasmatic disease could never arise except when the conditions comprehended by the term miasmata were present. This belief has descended to our day, and there are num-

bers of medical men in excellent standing everywhere who still believe in the doctrine. Of course it cannot be doubted that the disease occurs more extensively and severely in aguish districts than anywhere else, but very pure forms of it are found at great distances from such localities, and where the general conditions of situation, air, food and drink are excellent. If their occurrence here is inexplicable on the score of miasmata, a reason must be sought in malaria or in some of the other subsidiary causes of the disease.

It is useless in this day to uphold the older writers in their assumption of the *one* cause of miasmatic disease. Experience has demonstrated that they were wrong, also, in ascribing it to the stagnation of fresh water over animal or vegetable matter in a state of decomposition. Their teaching on this point is very direct, and admits only of one construction. Salt marshes cannot originate the disease. If there be any who doubt the correctness of this assertion, they are referred to the lectures of Marshall Hall on the subject of fevers. To-day, there is scarcely a medical writer who stands higher than he, or is more frequently quoted as an authority. He teaches clearly that salt marshes do not engender miasmatic fevers, and cites, if we recollect aright, the marshes which surround Venice. Such, too, was our belief when we first came to this coast eight years ago, but a little experience weakened this belief, and led us ultimately to reject it altogether.

[TO BE CONTINUED.]

ART. IV.—*Pleuritic Abscess.*

DR. T. H. PINKERTON, of Oakland, reports that on the 7th of November, 1871, he was called to attend McM., *aet.* 35, native of U. S., unmarried, ship-caulker by occupation. The history of the case as far as could be learned was as follows: Has had a cough for more than four years; after the first year had profuse nightly perspirations (warm) which continued for three years: two years ago had an attack of pleurisy, which confined him to the house for two months, although the pain in left side has continued since. About one year ago he commenced to feel

what he described as water in left pleural cavity, and calling the attention of his homœopathic attendant to the symptom, a consultation of three of that faith was held and it was determined to let nature take care of the fluid. The quantity continued to increase until the whole of the cavity was filled, causing excessive embarrassment to the heart's action and great difficulty in respiration. On the date above mentioned, he was found much emaciated, although stronger than one could expect under the circumstances. There was pain on left side of neck and in the line of the trachea, and a harassing cough. Pulse, 136. A small pulsating tumor existed one inch below the clavicle and an inch and a half to the left of the median line, which tumor, after a careful examination was opened, when pus and serum were forcibly ejected on each expiration. Fifty ounces were disposed of at that time, and, during the first day another discharge of twelve, and a second of eight ounces took place. On exploration it was found that the pressure of such a quantity of fluid had caused quite extensive absorption of the upper third of the sternum, and there was necrosis of the sternal extremities of the first and second ribs. On the 14th of November, a small fluctuating tumor was discovered on the right side, two inches below the clavicle, and one and one-half inches to the right of the median line, extending to the right four inches. On opening this, a small quantity of pus accompanied with gas escaped. This opening showed no disposition to heal, although no more discharge tock place from it. The other opening had a very unhealthy appearance, the skin sloughed away, small portions of sternum were detached, and on the 24th of January, a fragment of necrosed second rib, on left side, was removed with more absorbed sternum. From the time of first discharge of pus and serum he had daily discharges, amounting in all to *ninety-seven, and the entire amount thrown off was five hundred and eighty-two ounces!* His usual mode of evacuating the pus being, to sit on the edge of the cot with a wash-bowl on the floor between his feet; he then leaned far forward, when by coughing and forcible *expirations* he emptied the cavity. The air freely entered the opening on inspiration, and but for the noise it made, occasioned no inconvenience; generally a piece of empl. adhes. covered the aperture. His appetite continued good until the middle of January, when that, with his strength, failed daily until the 5th of February, the day of his death.

Autopsy fifteen hours after death. Body very much emaciated. The opening on right side, did not communicate with the cavity of thorax and there was no necrosis of

ribs. The opening on left side communicated with pleural cavity, and extended from third rib to above the clavicle, while a catheter could easily be passed under the integument all over the left and the upper half of right side. The sternal third of first and second ribs were necrosed. On removal of sternum, about one pint of very fetid pus was removed from left side; the left lung was entirely gone, its pleural surface only, remaining closely adherent to anterior costal pleura. At the center of ninth rib the pleura was absorbed and necrosis had taken place. The right lung was healthy, its upper lobe being anteriorly attached to costal pleura by old adhesions. The heart was of rather less than the normal size, but healthy. No details of treatment are given, the case being simply described as one of unusual interest. It extended over a period of more than four years, during about one half of which he was able to attend to his daily duties.

[The question very naturally arises how much longer might he have lived, had a properly "diluted and infinitesimal" incision been made, a year ago, by the three worthies (?) who evidently thought that inasmuch as fluid to an extreme degree caused the trouble, more of the article would cure it.—ED.]

ART. V.—*Report of Autopsies performed at the City and County Hospital, San Francisco.* BY F. ENGELS, M. D.

Case 1. M. S., *aet.* 40, a native of Ireland, admitted August 18th, 1870, with the following symptoms: Right epigastric region swelled and tender on pressure, and severe pains in right iliac fossa; diarrhœa of the most offensive character, and numbering as many as 20, and even 30, stools a day. Ulceration of the intestines was diagnosed, and without materially differing in any respect from day to day, the case ended fatally after three days coma, September 10th, 1870. Autopsy six hours *post mortem.* Rigor mortis firm, body considerably emaciated, pupils dilated. The head was not

opened. Left lung congested at posterior part of lower lobe, otherwise healthy. Right lung strongly adherent to thorax by old pleuritic adhesions; highly congested in all its parts. Heart normal; right ventricle containing an antemortem clot extending into the auricle, left side containing liquid blood; valves healthy. In the pericardium nearly three ounces of serous, clear effusion. In the abdominal cavity sixteen ounces serum were found. Liver greatly enlarged, weight 6¾ pounds, containing multiple superficial abscesses; thirty distinct ones of the size of a pigeon's egg, being counted on the anterior, and eleven on the posterior aspect of the organ. One of the abscesses of the left lobe, corresponded directly to the circumscribed congestion of the left lung, having formed adhesion to the diaphragm; another one communicated with the transverse colon, having ruptured into that part of the intestines. Extensive inflammation of all the intestines existed with ulceration of the mucous membrane, extending in different places through to the external coat, and some even perforating and opening into the peritoneum or the adjoining organs. Besides the ulceration of the transverse colon, communicating with one of the abscesses in the liver, the intestines showed perforating ulcers in the colon descendens and in the rectum, both opening into the peritoneal sac in the left iliac region, and several ulcerations in the duodenum, had so nearly perforated the walls of the intestines, that the slightest touch sufficed to tear the intestine. Kidneys, spleen and pancreas congested, the former slightly enlarged, walls of the bladder thickened, containing about four ounces of urine.

Case 2. R. W., *aet.* 17, native of England, a boiler-maker by occupation, was admitted October 3d, 1870, with severe dyspnœa, pain in chest, and particularly left side; countenance livid, tongue coated, pulse 100. The whole left side was dull on percussion, cardiac dullness extending upwards and to the left. Auscultation gave a few moist râles on left, and distant bronchial breathing on right side. During the progress of the disease, which was diagnosed as pleuritis, with effusion in the pericardium, severe pains in the region of the diaphragm were complained of, and œdema of legs

and scrotum appeared, which was relieved by punctures. About October 20th, 1870, paracentesis of the thorax was performed, and nearly two pints of serum of a bloody appearance drawn off. Death took place November 14th, 1870. Autopsy, twelve hours, *post mortem*. Rigor mortis slight; body presenting general œdema. The examination of the brain and its membranes only showed the presence of fluid blood in the sinus of the dura mater, and a slight congestion of the hemispheres. Right pleuritic cavity contained three quarts of serum; left side five pints of the same fluid, lungs slightly congested; a few large yellow tubercles were discovered in the middle and lower lobes of the right lung, and in the upper lobe of the left lung, where one spot of diffuse tuberculous infiltration was found also. Pericardium ¼ inch thick, containing thirty-one ounces sero-sanguineous fluid of the same appearance as that drawn off by operation. Interior of pericardium and surface of heart completely covered with filaments of lymph, resembling a cover of moss, usually called "cor villosum." Heart adherent to pericardium at the posterior portion; the heart itself entirely disorganized by fatty degeneration, and appearing as a thin, yellowish substance, easily torn into shreds, and not resembling muscular tissue; valves healthy; walls of aorta very thin; liver slightly fatty; weight 3½ pounds. In the abdominal cavity 53 ounces serum were found. Spleen large and firm, weight 12 ounces. Cortical substance of kidneys enlarged, congested, the right one weighing 9 ounces, left 8½ ounces. Bladder contracted, empty.

Case 3. J. M., *aet.* 44, a German, and carriage painter by occupation, was admitted in December, 1869, with neuralgia, which had commenced in 1862, and resisting every kind of treatment, continued more or less ever since. The history of the patient revealed that he contracted a syphilitic ulcer in 1848, which was followed by a suppurating bubo, but no secondary symptoms of any kind. While working at his trade, he had head-colic five different times. He left the hospital in March, 1870, after getting somewhat better under a course of Fowler's solution, but returned in April as bad as ever, so that even chloform inhalations had

to be used to ease the paroxysms, which were always worse at night. June 1st, 1870, he commenced to take Potass. Iodid., gr. xlv; Potass. Bromid., ʒss; Quiniae Sulphat., gr. viij, three times daily, and had a hypodermic injection of Morphine gr. ½ every night. Under this treatment, combined with Auro-chloride of Sodium gr. $\frac{1}{12}$ three times a day, he improved so much and so rapidly, that he went out again apparently cured, September 9th, 1870; but as before, had to come back, in almost the same condition, about October 20th, but with less violent pain. The general health, however, was very much broken down, appetite entirely lost, and the stomach could not bear the strong medicine containing the Iodide and Bromide of Potassium any more. Valerianate of Quinia, in conjunction with Morphia, only gave indifferent results. Blisters to epigastrium relieved the at first incessant vomiting, but in spite of all care, he gradually grew weaker, and in December commenced to be delirious at night. About January 1st, 1871, paraplegia set in, slowly advancing, together with a semi-comatose condition, which continued with gradual sinking to his death, January 26th, 1871. Autopsy, 24 hours, *post mortem*. Rigor strong; pupils contracted; slight emaciation; scalp bleeding slightly under usual incisions; skull unusually thick. About ten ounces clear effusion at the base of the brain was found, which extended into the spinal canal. Dura mater adherent to cerebellum, and containing between its folds at the base of the brain near the medulla oblongata, on the right side, a tumor of the size of a walnut in process of softening and transition to pus; considerable effusion also in lateral ventricles; lungs, heart and large vessels healthy; *ante mortem* clots in both sides of heart; liver large, but healthy; kidneys very highly congested. Mucous membrane of stomach inflamed, large intestines containing fæces of great age and firmness; spleen normal. No cicatrices of secondary syphilis were found, except the one of the suppurating bubo in the left inguinal region.

Case 4. G. M., *aet.* 31, an Austrian fisherman, admitted December 9th, 1871, with syphilitic periostitis of tibia and other specific symptoms. About December 2d, while these

symptoms were in a fair way towards recovery, erisypelas of face and head set in, which produced three days afterwards slight delirium. Tincture of Iron in large doses; Bisulphide of Soda were freely exhibited, but without effect. December 26th; urine and fæces were passed involuntary and unconsciously, and the delirium became more and more active, until death took place, December 31st. During the delirium, he inflicted a slight flesh wound upon himself, with a piece of broken glass, in the abdomen, about 4″ to the right of umbilicus. Autopsy, 14 hours *post mortem*. Face enormously swelled, blood oozing out from mouth and nostrils; rigor well marked; thumbs clenched inside of fists; pupils dilated; scalp highly œdematous. On the right side, a spot was found on the dura mater, about 3″ square, considerably injected, and corresponding to a spot of the same dimensions on the inside of the cranium, which was denuded of the periosteum, and had a rough, peculiar feeling. Pacchionian bodies highly protruding through dura mater. Both hemispheres and cerebellum congested; slight effusion at the base of brains under the arachnoid and in the lateral ventricles; muscles of thorax very dry; bloody effusion in both sides; strong adhesions, specially on the right side; lungs highly congested and softened; 3 oz. effusion in pericardium; heart collapsed, completely empty, no coagulum or fluid blood being present in either ventricle or auricle; valves healthy; spleen enlarged; kidneys congested, both containing hydatid cysts, of size of pigeon's eggs; liver normal; gall-bladder full; intestines healthy, except slight gastritis at the cardiac orifice; bladder empty, firmly contracted.

Case 5. J. T., *aet.* 32, a laborer of Irish birth, was admitted for the first time in May, 1871, for condylomata on the preputium and glans penis, of enormous proportions, which were removed, but left visible cicatrices. He was admitted again November 13th, 1871, with an effusion in the abdomen, supposed to be dropsical from the fact that the patient's urine was very scanty, highly colored, and most offensive in odor. He also complained of some diarrhœa, slight cough, and extreme tenderness and pain in right

hypochondric region. From the time of admission he was slowly sinking, and was attacked November 27th, with an acute pain in the hepatic region, extending through the abdomen, followed by sudden collapse, which ended his life next day. Palpitation of the hepatic region, as far as pain would permit, had proved the edges of the liver to be rough and rounded, and an acute inflammation attacking a cirrhosed liver was suspected. Autopsy, seven hours *post mortem*; rigor commencing to form in lower extremities; pupils normal; head not opened. On opening the abdomen, nearly four gallons *purely sanguineous* fluid was removed, which had deposited some clots of fibrin behind the lobes of the liver. Strong adhesions on right side of thorax; middle and lower lobes of that lung congested; left lung healthy, adhesion slight; 3 oz. effusion of the same kind as in abdomen, were found in the pericaridum, excluding the idea of a rupture of some vessels, which also a careful search did not discover; heart containing small quantity of fluid blood in both sides; valves and arteries healthy. The whole liver was found studded with nodules of encephaloid cancer, filling the interior of the organ, and giving it the external appearance of a highly developed "hobnail liver." The center of the whole malignant structure appears, on section, to be in the centre of the right lobe, from which the masses seem to radiate in lobulated portions; gall-bladder full; spleen very large and soft; kidneys normal. After removal of the bloody effusion in the abdomen, the whole cavity and its contents, the external coating of the intestines, the diaphragm and the peritoneum appeared in a high state of inflammation, the fluid leaving those organs of a uniform dark pink color, and causing even a slight deposit on the diaphragm. Interior of intestines quite healthy; bladder half full.

The venerable Chas. A. Lee, M.D., Emeritus Professor of Materia Medica, in the Med. Dept. University of Buffalo, and author of several practical medical works, died at his residence at Peekskill, N. Y., on the 15th inst.

Obstetrics and Diseases of Women.

ART. VI.—*Multilocular Cyst of the left Ovary; operation at a very advanced period of the Hectic Fever; parietal and Visceral Adhesions and general Peritonitis; death.* By ADOLPHE ANDREI, M.D., San Francisco.

In presenting to the medical public of San Francisco the history of an operation of Ovariotomy, I cannot help prefacing it by a cardinal reflection. It is regarded by the majority of surgeons of this city as an operation which should not be attempted in San Francisco, basing their opinions on the few cases which have been operated upon here, and considering that the proportion of failures are due to an indefinable something in the atmosphere. This kind of opinion is not new to me, for I was in Paris at a time when the same kind of notion had full possession of the Parisian surgeons, and to such a degree that the most absurd theories prevailed, some of them even going so far as to make it a question of race. Need I say that such theories and opinions had no foundation? The facts demonstrated their worthlessness, and that experience gives me the stronger argument against their admissibility here; that we must search for the cause of our failures in another direction and not attribute it to the much-abused air of San Francisco.

Ovariotomy, which only a few years ago was considered barbarous, hazardous, and almost necessarily mortal, tends to become more and more one of our ordinary operations, owing to the perfection to which the process has been brought. It gives to-day the most remarkable and brilliant results in every respect. Its gravity is proportional to the complications which are presented, and the bad results formerly attained should be attributed, independently of the manner of operating, to the error of contemporaneous

medicine, which by procrastination allowed the disease to become so complicated as to be almost too far advanced for a successful result.

That in my opinion is the vital reason which explains our non-success, and I may add every important operation may fail from neglecting minute details before and during the operation. In fact, in Paris, the failure for a considerable time was complete, and there was only a change after Nelaton's return from London, where he went for the purpose of studying the question—a study simple and practical, for it merely consisted in seeing the careful manipulations, and the skillful consecutive treatment which those ornaments of English surgery, Spencer Wells and Baker Brown, bring to bear on this operation. The first surgeon in Paris who commenced the struggle against the prevailing doctrines and prejudices was Dr. Pean, who communicated the proportional results of his private practice to the Paris Academy. In four cases operated upon, he was successful in three.

Wishing to limit myself at present to a short article, I hope to be able at a future time to give my attention to the production of a work having for its subject an extended view of the Results of Ovariotomy in Europe. My present object is only to express my thoughts on the opinion which is almost universal, which tends to consider that San Francisco is the principal negative condition for this operation, the tendency of which seems to be that locality has an importance negative to the success of this particular operation, and that of San Francisco in a very marked degree.

Mrs. N., resident of Sonoma; aged twenty-eight; of German birth; blonde; nervous temperament; married a second time; had three children by her first husband. Two years ago she perceived that her abdomen increased greatly in size, with suspension of menstruation, which led her to believe herself *enceinte*. At that time the abdomen was not painful, but the patient had some digestive troubles, nausea and occasional vomiting, which might justify her own idea as to the reality of her condition. Notwithstanding, she called in her family physician, who pronounced it an ordi-

nary case of pregnancy. The supposed pregnancy made rapid progress, and the ninth month arrived, without any derangement of the general health. Her happy expectations were betrayed, for the ninth month elapsed without any accouchement. A consultation of several physicians was held, and instead of a case of pregnancy it was declared to be a case of Ovarian Cyst. The question of whether or not to operate, was discussed, and, for what reason I know not, it was decided to abstain from so doing, so that the unfortunate patient had to return home, consoled perhaps, but not saved from the serious suffering which she subsequently underwent, and which during the whole twelve months afterwards nearly destroyed both mind and body, for she became reduced almost to the condition of a skeleton. In this state she again came to San Francisco, and put herself into the hands of a *soi-disant* physician, who by means mysterious and incomprehensible to ordinary minds, promised to dissolve the fœtus by the astonishing action of his elixirs! Unfortunately for the charlatan, unhappily for the poor patient, four weeks rolled by without any such miracle happening; and at last I was called to see the sufferer. I found the patient in an alarming condition and emaciated to an extreme degree. She was a prey to all the symptoms of the most intense peritonitis, face shriveled, pulse filiform and difficult to count, violent pains, vomiting, dryness of the skin, cold extremities. Her anæmic and exhausted condition constituted a very serious counter-indication for an operation; I objected to taking the responsibility of it, and only consented, in answer to the ardent desire of the poor woman, to conquer my repugnance and to decide on performing an operation, which, unquestionably, presented the sole hope of saving her life, but which could only be undertaken as a last and desperate resort.

The abdomen measured fifty-two inches in circumference; was considerably distended as far as the hypochondria; surface somewhat regular; fluctuation evident; on percussion, dullness; undulatory movement very perceptible in the whole abdominal cavity, except in the epigastric and lumbar regions, where resonance was manifest. To the

touch, the uterus was somewhat low and towards the right, seeming to be adhering to the side of the pelvic cavity; the rectum and bladder, which was filled by the tumor, flattened against the walls of the pelvic cavity. The nature of the pains gave rise to the fear, which proved to be only too well founded, of the existence of extensive adhesions.

The operation having been decided on, I administered a purgative of castor oil, followed in two hours by a large injection of ox-gall. On the day of the operation the patient, being dressed in a flannel chemise and drawers, was carried into a large and well ventilated room, in which a fire had been kept during the previous twenty-four hours, with a boiler of hot water, so as to keep the air humid. The temperature was 60° Fahrenheit. The patient was placed on her back on the operating table and carefully covered, bottles of hot water being placed at her feet. I was assisted by Drs. Scott, Martmaehe, O'Neil, Hoff and Fourgeaud. Ether having been carefully administered, I made a long incision on the median line, from the umbilicus to the pelvis. The division of the layers having been effected according to rule, I cut the peritoneum on the director, when the cyst appeared between the lips of the orifice. The right hand having been dipped in a solution of carbolic acid, I slipped it over the surface, and found a large quantity of epiploön adhering to the greater part of its anterior and superior faces. The rupture of the adhesions having been effected, it became possible to turn the tumor, to see if any others existed. The cyst was punctured by Wells' trocar, and it was held in place by means of forceps whilst being emptied of its dense, viscous liquid. Several incisions were made, and about fifteen or sixteen quarts of liquid of different colors and densities escaped, whilst the tumor was submitted to traction. The incision in the abdominal walls was lengthened by about three inches above the navel in consequence of the immense volume of the cyst. When it had been lifted out I perceived that a large quantity of the intestines were adhering to the inferior face, forming a true crown. The adherent intestines being very flabby, and of a dark color, the result of the extraordinary chronic enter-

itis to which they had been subjected for such a length of time, were detached with the utmost care and delicacy. This was the part of the operation most to be dreaded, but it was accomplished almost without loss of blood. The whole of the peritoneum presented evidence of general peritonitis, and in different places there were hard and thick false membranes. The pedicle was thin, long and only slightly vascular, attached to the large ligament on the left side. I tied it with a silk ligature and made the section. The abdominal walls, which bore marks of vascular adhesions with epiploön, were cauterized so as to be sure of avoiding even the least hemorrhage. I now proceeded to cleanse the intestines, taking care not to leave the least trace of liquid, by introducing sponges into the bottom of the pelvic cavity. The wound was united by six separate, deep, metallic sutures, embracing a portion of the parietal peritoneum and five twisted superficial sutures. The wound was now closed, except at the lower part where the pedicle was situated, and was kept firmly in place by a bandage round the body, which was fastened by a long needle near the inferior portion of the orifice. I used dry dressing held in place by a flannel bandage. The operation lasted about two hours, during which time the patient was in a calm sleep. The tumor was estimated to weigh about thirty pounds.

The patient having been carried to her room, was placed in bed and soon recovered her senses. Considering the state of the patient before the operation, I thought her in a very satisfactory condition. The pulse was weak but regular; the extremities warm; the physiognomy less shrivelled; no vomiting. In the evening the respiration was free; pulse better, beating 150, but fuller and easier to count; iced and alcoholic drinks were taken with pleasure. The abdomen was well supported, remaining pliant and painless. The bladder was emptied by the catheter; urine normal. There was not much change during the first three days; pulse steady at 150, but seemed less full; abdomen unchanged; no pain; skin cool; physiognomy composed; emission of urine natural. At the end of the third day the pulse oscil-

lated between 145 and 150; the abdomen slightly swollen; no pain. I changed the dressing and touched the pedicle with a mixture of equal parts of carbolic acid and linseed oil. The fourth day the swelling somewhat increased; sensibility of the lower portion of the abdomen; applied a linseed poultice and gave a laudanum injection; pulse 150; urine normal. Fifth day, pulse 150, but difficult to count; exhaustion marked. Sixth day, profuse diarrhœa, which was arrested by large doses of laudanum by injection; gave stimulants; pulse filiform; reduction of temperature; complete collapse. Seventh day, in the same condition, and she died in the evening.

Remark.—It is only necessary to glance at the preceding observation to see that the operation was made under such unfavorable conditions of health that a fatal result was almost inevitable, but I do not hesitate to affirm that the chances of death would not have been less in any other place than in San Francisco.

WE desire to call attention to the Constitution of the Alameda County Medical Association as published elsewhere in this number, particularly to ARTICLES IV and VII. If all medical bodies would do likewise we would soon hear the last of irregular practices among those who claim to be regulars. ARTICLE VII will take care of those renegades who, if allowed to resign and go out with a clean record to commit professional indiscretions elsewhere, were beyond the reach of repudiation by their late associates. They can now be expelled and exposed by the honest men who are thus allowed to clear their skirts from the suspicion that the odor of an apostate memory remains to contaminate the atmosphere he lately breathed.

Ophthalmology and Otology.

ART. VII.—*The Intra-Ocular Serous Membrane and the Nature of Glaucoma.* By DR. A. SICHEL, Jr. PART I.

[Translated in two parts from the Annales D'Oculistique (July and August number, p. 19 *et seq.*) by WM. F. SMITH, M.D.]

IT is incontestable that few subjects, within the domain of Ophthalmology, have given place to as many writings of diverse nature as that of glaucoma.

He, then, who should attempt at this day to raise a corner of the veil in which this question seems to be enveloped, perhaps for a long time still to come, would be considered bold; while this veil is shown to have been almost impenetrable for the most illustrious masters, I may name Donders, Arlt, and especially Græfe. However, a recent discovery has caused me to decide to write the following pages which, if they do not definitely settle the question, will at least bring before my readers a very interesting and conscientious work, that, from the special nature of the collection where it may be seen, is not perhaps at the disposition of all.

But before entering into the heart of our subject it may be permitted to us, without wishing to record here a history of this question, so well known to all, especially since the excellent thesis of Dr. Haffmans,* to call to mind the principal phases through which the study of the pathology of glaucoma has passed; an examination which will not be, perhaps, without interest. Since all time, the obscurity of the development and the insidious character of the disease, the barrenness of the medical treatment, and finally the absence of lesions distinctly appreciable by *macroscopic* examination, the only means possessed by the ancient masters, have excited, to a high degree, the sagacity of observers; but one is forced to recognize the fact, that, in spite of the most praiseworthy efforts, all are baffled by the same obstacles; no one succeeds in furnishing a distinct and plausible explanation of the phenomena observed during life. The reader will not compel us to go back to the most remote

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* *Bijdrage tot de kennis var het Glaucoma.* Utrecht: 1862.

epoch of the knowledge of glaucoma. It seems in effect to have been known from all antiquity, although it appears often to have been confounded with some forms of cataract. It seems to us sufficient for the end we propose actually to attain, to go back only to the commencement of this century, the epoch at which Ophthalmology entered its true scientific era.

Beer considered glaucoma as a consequence of an arthritic vice, and it is not difficult to recognize in that which he describes under the name of *arthritic ophthalmia** that which is termed to-day "*acute glaucoma.*" Also, the description which he gives of glaucoma, in ranging it among the arthritic affections,† proves all the sagacity of his observing spirit, but teaches us nothing as to the nature of the affection.

To Weller‡ appertains the first authoritative description of the disease which claims our attention. He is the first who speaks of the vision of rainbow-circles around lights, and of the hardness of the globe. But we find, however, that the pathology leaves much to be desired, because he adheres to the opinion of Beer, and believes himself able to affirm, that the true seat of the disease rests in a trouble of the vitreous body, which, according to his dissections, should be found of a light brownish green color, but especially in the retina, of which the color should be altered, and which, according to him, should be the essential seat of the disease. In order to confirm his words he supports himself on the opinion of Wenzel,§ of whom he cites the passage, "That which is called glaucoma," says Wenzel, "seems to me to be a veritable disease of the optic nerve, which alteration communicates itself to the retina, its expansion."

In relation to its pathology, the first idea, at all distinct, that we encounter, is found in the work of Mackenzie,|| who calls particular attention to the hardness of the globe, which he attributes to a change in the consistency of the contents of the eye, and which appears to him to be due to an *accumulation of liquid* in the interior of the globe. Shortly

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**Lehre von den Augenkrankheiten.* Bd. 1, p. 577–587. Wein: 1813.

†*Loc. cit.* Bd. 2, p. 254–256. Wein, 1817.

‡*Die Krankheiten des Menschligen Auges.* Berlin: 1830; p. 298–303, 4th Ed.

§*Manuel de l'Oculistique*, t. 1, p. 321. Paris: 1808.

||*A Practical Treatise of the Diseases of the Eye.* London: 1830; p. 706 *et seq.*

after, appeared the celebrated work of my father,* in which, basing himself on numerous anatomical researches, he considers glaucoma as the result of an *arthritic choroiditis*. This opinion soon gained numerous partisans, notably Arlt,† and Schrœder Van der Kolk,‡ and later, Lawrence,§ who considered the malady as the consequences of alterations of the choroid, and consecutively of the retina. After this, a number of years passed without any well marked works appearing upon this subject. However, Stellwag von Carion|| makes the remark, that besides the choroiditis there exists in glaucoma other alterations, and that during a long time the vision may present troubles more or less well marked before it is possible to recognize the presence of choroiditis. He goes so far, even, as to affirm that, far from being always the cause of the malady, the choroiditis is often only the consequences of it. With him terminates the *preophthal moscopic* period. Up to this point the authors just cited base their works upon the phenomena observed with the naked eye during life, or, on the result of dissections and anatomical examinations made without the aid of the microscope. Ed. de Jæger[1] places himself at the head of the second period. To him is due the first ophthalmoscopic drawing or design of an arthritic amaurosis (glaucomatous); but the changes having taken place in the appearance of the optic papilla are attributed by him to an *arched* condition of the nervous disc; and no indication is found of the pathology of the disease. Then appeared the first work of Græfe,[2] where he describes also the change in the form of the papilla, its *convex* aspect, and indicates for the first time another extremely important sign, *the spontaneous pulsations of the central artery*.

He observes in this connection that he has remarked this phenomenon in no other affection of the bottom of the eye, and that *he considers it as of an extreme importance for the interpretation of the nature of the disease*. A short time after-

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**Sichel, Traite de l'Ophthalmie, de la Cataract et de l'Amaurose.* Paris: 1837.

†*Prager Vierteljahrschrift*: 1839.

‡*Over choroiditis, als vorzaak van glaucoma, in Verhandlingen van het Heelkundig Genootschap te Amsterdam*: 1839.

§*On the Diseases of the Eye.* London: 1844.

||*Die Ophthalmologie vom Naturwissenschaftlichen Standpunkte bearbeitet.* Erlangen: 1855; Bd. 2, abt. 1, p. 110 *et seq.*

1 *Uber Staar und Staar operationen, nebst anderen Beobachtungen und Erfahrungen.* Wein: 1854; p. 103, Pl. viii, fig. 34.

2 *Arch. f. Ophth.* Bd. 1, *abt.* 1, p. 371 *et seq.*: 1854.

wards he published a second memoir,* in which he observes that the optic papilla is *not arched*, but even *excavated;* that is to say, that in place of being *convex* it is *concave*. These two phenomena, the excavation of the papilla and the spontaneous pulsations of the central artery, seemed to him sufficient to suggest the thought that the disease might be caused by an *exaggeration of the intra-ocular tension*, and in support of this hypothesis he cited the transient ameliorations obtained by the *repeated evacuation of the aqueous humor* (paracenteses). Soon after appeared his third, and immortal memoir† on the curability of glaucoma by iridectomy; a memoir in which he still sought to demonstrate, that the veritable cause of the disease is an exaggeration of the intra-ocular tension, which he did not hesitate to attribute *to a serous hypersecretion*, due to an *inflammatory alteration of the uoeal tract*. Some time after appeared the very interesting thesis of Haffman's, in which are reported the ideas of Donders, who attributed the development of glaucoma to a serous hypersecretion, which the celebrated professor thought due to a *neuroses of the ciliary secretor nerves*.

Naturally, pushed forward by such authors, the doctrine of the augmentation of the intra-ocular pressure should have great success. It was indeed almost universally accepted by all ophthalmologists, with this difference, however, that some adopted the opinion of Græfe, and others that of Donders. Nevertheless those opinions, which attributed the cause of glaucoma to the intra-ocular hypersecretion of a liquid, were as yet only hypotheses, when facts of an extreme importance produced themselves. In the month of January, 1867, during my last sojourn in the city of Berlin, an officer of the Russian army presented himself to Græfe, aged about fifty years, troubled by the prodromata of glaucoma, characterized particularly by the presence in the right eye of the rainbow circles around lights. Warned by the professor of all the gravity of the affection by which he was attacked, this officer submitted himself, the next day, to the operation of iridectomy. On the evening after this operation, on leaving the clinic in order to return to his residence, Græfe and myself entered the carriage. The temperature was very low, 12° Réaumur, and the professor, of whom the respiratory tracts were of extreme susceptibility, had caused the glass windows of the carriage to be carefully closed. At the end of a few moments these were

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**Arch. f. Ophth.* Bd. 1, *abt.* 2, p. 299 *et seq.*: 1855.

† *Note sur la guérison du glaucome au moyen d'un procédé opératoire*, Mémoire adressé à l'Institut de France. Berlin: 1857.

covered by a thick vapor. Suddenly, in mechanically regarding a lighted street lamp through one of these windows, Græfe observed that the presence of the vapor on the glass gave place, around the flame of gas, to a veritable halo, presenting all the colors of the spectrum, the violet occupying the parts nearest to the flame, and the red the portions more peripheric. This observation was, for him, truly a new light. He called my attention to the phenomenon; we determined its existence several different times, and he observed that he thought it possible that, the rainbow circles which were seen by those affected by glaucoma might be of the same nature. He also communicated to me his intention, as soon as the condition of the patient would permit it, to cause him to observe the same phenomenon. Some days after, when the patient was entirely convalescent, and his condition permitted him to encounter the rigors of the temperature, Græfe, under a simple pretext, entreated him to enter the carriage with us. Suddenly, and without warning, Græfe directed his attention to the gas flames which we encountered in our passage. Immediately the patient exclaimed: "*Heavens! Doctor, I am again attacked by my disease. I see again the same rainbows, not only with the eye operated upon, but also with the other.*" Græfe and myself were taken with an hilarity but little appreciated by the poor patient, but of which he soon understood the cause, when, after having cleaned the glass, Græfe caused him to remark that the alarming phenomenon had immediately disappeared, and reappeared, on the contrary, as soon as the patient directed his regard through the other glass, still covered with its vapor. This experience clearly proved the presence, in the glaucomatous eye, of a product analagous to the vapor of water, and which disappeared as a result of iridectomy. I do not know how it happened that Græfe never published this very interesting observation, which, however, gave such a striking confirmation to an hypothesis emitted by him. Things were in this condition when there appeared at the head of the first folio of the sixteenth volume of the *Archiv. fur Mikroskopische Anatomie of* Max Schultze (Bonn, 1870, Max Cohen und Sohn), a very interesting memoir by G. Shwalb,* to which we have already made some allusion at the commencement of this paper. In reading this memoir, it seems to me that it should bring about a complete revolution in the study and knowledge of the question which occupies our attention,

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**Untersuchungen uber die Lymphbahnen des Auges und ihre Begrenzungen*, p. 1 to 58.

and I demand of my readers the permission to give them a succinct analysis of that part which specially touches our subject. In commencing, the author announces, that in his actual work he will only speak of the lymphatic tracts of the posterior segment of the eye, reserving for his next publication the consideration of those of the anterior segment. "According to him the ciliary body forms the limit between the two. To the posterior segment appertains the lymphatic tracts of the retina, of the peri-choroidian space, and finally of that portion situated between the internal and external coverings of the optic nerve, which, without communicating with the two preceding, directly anastomose within the arachnoid space. As to the lymphatics of the anterior segment, without giving details as to their position, the author only indicates that they form a system completely separated from the preceding, and he reserves the details of their description for his next work." After this preamble, the author commences the exposition of his subject by the study of the tissue of the supra-choroidian membrane. "If one attempts to separate the vascular membrane of the eye from the sclerotic, it is immediately perceived that these two membranes are intimately united in only two points, at the plane of the optic-nerve entrance and in the neighborhood of the extreme periphery of the cornea. In all the rest of their extent these two membranes are easily separated, not taking into account, of course, the vascular branches and nerves which it is necessary to tear away.

"The membranes once separated, one remarks immediately, that their opposing surfaces possess the *brilliancy and smoothness of serous membranes.* Besides, in men and in certain animals, one notices, as well on the internal surface of the sclerotic as on the external surface of the choroid, after their separation, flaky tissue, rich in pigment, which unites the two membranes, the one to the other. This tissue is generally known to-day under the name of 'supra-choroidian membrane,' and is considered as a couch or layer separate from the choroid, properly speaking. This membrane is very distinctly differentiated from the choroid by its peculiar tissue; as well by the aspect of the pigment cells, as by the absence of all blood vessels. As to the *soi-disant lamina fusca* of the sclerotic, it is only that portion of the supra-choroidian membrane remaining adherent to the sclerotic after the separation. This brilliant and polished aspect of the internal face of the sclerotic and of the external face of the choroid did not escape the notice of the ancient anatomists, and Arnold expressed the opinion that the space comprised between the sclerotic and choroid, was

only a true lymphatic sack, and that it existed in consequence of a veritable *intra-ocular arachnoid.* The justice of the opinion of Arnold will be seen further along. But, before all, it was necessary to demonstrate that the intimate texture of this intra-ocular arachnoid coincided with that of serous membranes.

"Now this proof was impossible by the methods of examination then in usage. It is not astonishing, then, that Brücke himself denied the existence of this intra-ocular serous membrane, in spite of his acquaintance with the microscope, because even in his time, one had not at one's disposition the methods of actual examination. Since then, the opinion of Arnold fell into oblivion. But with the aid of the histological methods to-day in usage, it is not difficult to prove, that the walls of the space compressed between the sclerotic and choroid are very analogous to serous membranes. They show especially the greatest analogy to *lymphatic sacks.* In order to prove the justice of this comparison it is sufficient to demonstrate, that this cavity is lined, in a continuous manner, by endothelium.* By employing the method of preparations by nitrate of silver, invented by Professor von Recklinghausen, the author succeeded in rendering apparent the endothelium of the walls of the peri-chorodian sack. For this purpose he made his first preparations on the eyes of albinotic rabbits, which, on account of the lack of pigment, rendered the silvered images much more distinct and therefore more apparent. Shortly after, he repeated the same experiments on the eyes of other animals, and finally on the human eye.

"One succeeds with special facility with those specimens which have remained some time in the solution of Müller. After remaining a few minutes in a solution of ½ to ¾ per centum of nitrate of silver, one obtains preparations which show a net-work of straight lines crossing one another in such a manner as to circumscribe between themseves polygonal meshes. Here and there in this net-work are distributed nuclei with biconvex surfaces and ellipsoid contours. Some of these nuclei are even furnished with nucleoli. These nuclei and these meshes are often identical with those of the endothelium of the lymphatic sacks of the frog, and often with those which one finds on the internal surface of the lymphatic vessels of the intestinal canal. The supra-choroidian membrane, which does not exist during the embryonic period, is slightly apparent in the new-born,

*Name given by His to that variety of epithelium which line serous cavities. (Note of the author).

also in the first periods of life. It becomes more and more apparent with age, and this, the author attributes to the repeated movements of the choroid to obey the demands of accommodation for near vision. These repeated tractions have a notable influence upon the ulterior development of the membrane, and should bring about this result, as with the progressive development, the choroid will glide more and more easily on the sclerotic, and the free spaces existing between the sclerotic and choroid will increase in extent.

"When one has succeeded in isolating this endothelium, no folds being formed, it is sometimes difficult to perceive it. It is only by the presence of the nuclei that the attention is attracted towards it. These nuclei are often very difficult to recognize, but the carmine tincture or the iodide always furnishes precious results. In those points when folds occur, one easily perceives that the membrane itself has only a scarcely appreciable thickness."

[Part II of this very interesting paper will appear in the March number.—ED.]

ART. VIII.—*On the Employment of the Nasal Douche.* By L. ELSBERG, M.D., Clinical Prof. of Diseases of the Throat in the University of New York.

[From the Archives of Ophthalmology and Otology, by PROF. H. KNAPP, M.D., and PROF. S. MOOS, M.D., pps. 177 to 183.]

A number of cases of otitis media have recently been published, said to have been caused by the use of the nasal douche. Aurists have come to regard the method as fraught with "serious danger," some going so far as to interdict it altogether. I believe Prof. Roosa is right in stating that his case was the first published "where the use of the nasal douche was considered the cause of the aural inflammation." Prof. Moos has reported injurious consequences following it. Prof. Knapp and Dr. Pardee join in the condemnation. Personally convinced that, when properly used, the douche is both harmless and useful in the treatment of diseases of pharyngo-nasal space, I deem it not unimportant to say a few words in its favor. The danger dreaded is from the

passage of liquid into the tympanum, and this alone, perhaps, comes properly within the scope of the *Archives*. I shall therefore address myself to this point only.

In the first place, the number of adult persons in whom, when the parts are at rest (*i. e.*, when the persons are not engaged in the act of swallowing, or the like), the pharyngeal end of the Eustachian tube is naturally patent, and not sufficiently far back to make the accident possible, is very small. Rhinoscopical examinations, to say nothing of anatomical investigation, demonstrate this so indubitably, that it can be asserted dogmatically. In disease, the mucous membrane lining the Eustachian tubes, and surrounding their pharyngeal orifices, so frequently becomes swollen, that the cases in which the accident under the same circumstances otherwise would be possible, become still fewer. Indeed, I have several times, since Prof. Roosa's article has been published in these *Archives*, made the careful trial, and found it difficult in cases of chronic catarrh to make fluids enter by means of the douche, even during swallowing, although the Eustachian tubes appeared free, and there was not the slightest difficulty of hearing present. That I do not mean to allude, in this connection, to cases in which the Eustachian tubes are abnormally impermeable, is, of course, understood; nor do I here lay any stress upon the fact that I have more than once, without the least injurious consequences, injected liquid into the Eustachian tube, both through the Eustachian catheter, by a syringe, and through the Eustachian nebulizer, as well as by means of the douche, during deglutition. But I believe that, in the rare cases in which the occurrence of the accident would, so far as the patency of the tube is concerned, be possible without deglutition, it is made very improbable when the douche is properly employed.

In the next place, let me refer to my experience. Of 1,600 different individuals who have during the past six months used the douche under my advice, the following four have experienced unpleasant ear-symptoms.

[The author here gives a detailed history of four cases, illustrating how the douche may be used in a manner to produce violent inflammation, when the usual precautions have been neglected. In the first case the accident happened, as explained in the patient's own words, when he attempted "*on his own hook to combine with closed mouth, Valsalva's experiment with the douche.*" In the second, the disease commenced after a "spree" during the night, and although attributed to the violent use of the douche, the

fact is open to question. In the third, the inflammation was evidently produced by the use of cold water, which is entirely contrary to an important and primary precaution. The fourth case seems to be one in which there was exceptional irritability of the Eustachian tubes with perforation of the membranæ tympanorum, and is the only case in which experience proved the impracticability of the nasal douche. I may add that in a rather extended observation and practice, I have yet to see the first case in which acute otitis could be directly attributed to the use of the douche. I recommend it constantly and with confidence.—TRANSLATOR'S NOTE.]

Other patients have occasionally complained of unpleasant sensations in the ears, particularly on using the douche awkwardly, but in only the four cases mentioned have such symptoms amounted to anything severe, or lasted longer than from half an hour to a few hours. It is remarkable that I have never seen any severe ear symptoms follow the douche in children, although I have employed it from the age of six years upward, and in one case at the age of four years. With that one exception, I have always used, in children younger than six years, the Davidson or another syringe through the nose from the front. In addition to these sixteen hundred, a large number of persons whom I have never seen as patients have learned the regular use of the douche from these. Nasal and post-nasal catarrh is very common in this country, and unless particularly troublesome, it is not brought directly to the notice of the physician, although the sufferers are anxious enough to do something for palliation, and many members of families so situated that they cannot obtain regular treatment, or who are constantly exposed to the causes of catarrhal affections, use the douche by themselves; and, strange as it may appear, I know of households, the unaffected members of which have adopted the occasional use of the douche as a matter of cleanliness and toilet. Yet from this additional large, though uncertain number, I have never heard of any case in which bad symptoms followed the use of the douche.

To my certain knowledge, some have continued it once or twice daily for a number of years, neglecting it, perhaps, not more han half a dozen times a year; and many have for months and months. This is my answer to Prof. Roosa's statement (*Archives*, p. 363): "I have seen few cases where the use of the douche could be tolerated for any length of

time. Its daily employment is very often attended with great discomfort."

Dr. J. Solis Cohen, of Philadelphia, has informed me that his experience corresponds with mine.

I have insisted upon the harmlessness of the nasal douche *when properly employed.* Of course it may do harm when improperly used. But it need not be supposed that the necessary precautions are complicated or difficult to take. On the contrary, they are so simple that they can be safely left to patients after they are made to understand them. Without discussing the method fully, or the various medicinal solutions, I will speak only of three or four points which apply to the douche when used for general rinsing, *viz.*: 1. Ordinary water, even distilled water, does not act so soothingly or indifferently as water containing a teaspoonful, or a little more, of common salt to the pint. 2. The temperature must be nearly that of blood-heat, though warmer solutions are frequently, though not always, well borne; *cold* liquids hardly ever are. 3. Involuntary swallowing during the operation must be prevented, therefore, the mouth must always be opened, and the tongue should be held outside of the open mouth by the hand, covered with a towel, glove, or the like; if liquid comes into the throat, which is to be swallowed or ejected, the operation must be interrupted; and, 4. The pressure must be but slight at first, *i. e.*, the vessel containing the liquid must not stand too high above the level of the nostril, but may be gradually raised.

If it be deemed necessary to analyze the cases of accident published, it may be seen that Roosa's case is uncertain. Knapp's case is one of my four: the medical student "neglected to open his mouth as widely as usual, a drop trickled down the throat, and involuntary swallowing took place;" and Pardee's other case rests only upon "the intelligent and straightforward statement of the patient," and also leaves it uncertain whether the douche was properly used or not. My cases, besides being so small a percentage, explain themselves.

That the douche is but one means, and not to take the place of other means, in the hands of the physician, I presume I need hardly add. The only point I wanted to make is, that the douche, so far as it goes, is both efficient and safe.

Editorial.

ART. IX.—*Medical Education of Women.*

Is woman by nature unfitted to be a physician? If either her physical nature be such as to unfit her for the regular performance of the work, the actual drudgery of the calling; or her moral character be such as to render her untrustworthy in moments when coolness and self-reliance and quick adaptation to emergencies are needed; or her intellectual capabilities be not of a high enough order to enable her to grasp scientific truths and apply them to the conduct of every-day life; then assuredly she is by such natural inferiority unfitted for the practice of the healing art. But not only is there no real reason to believe that she is thus inferior, but it is probably true that mankind are hardly yet in a position to judge what her capabilities are, and what her performance would be if she had a fair field and were untrammeled by obstructive laws and customs, the slowly-fading legacies of a semi-barbarous effete condition of civilization, and were educated for an active instead of a passive life.

Educate a boy from childhood until manhood to follow the pursuits and devote himself to the interests that now absorb the lives of most women during a similar period, and it would be unfair to expect of him any great degree of self-assertive vigor; and by such education of the males of any given family for three or four generations, they would probably be rendered entirely effeminate. Women have been made helpless and dependent as they are by ages of repressive education, artificial customs, and restrictive laws. We cannot even imagine, with any degree of exactitude, what they would be if, unfettered, they were allowed to work out their own destinies. But this we do know, that every improvement in the condition of mankind has so in-

variably been accompanied by an advance in the social and political feedom of women, that the most reliable test of the degree of civilization of any race or age has been found to be the comparative degree of freedom or slavery of its women. At the dawn of human history, and presumably in the pre-historic ages also, every woman was the property of some man. This was a necessary result of the law of force and of the value attached by men to women as conducive to their pleasure and comfort. When social order and organization began to take the place of brute force, and codes of law were introduced, no sudden or violent changes in usual customs were called for or thought of, simply the existing state of things receive the sanction of law; and thus women were continued in the same kind of slavery, though perhaps in a somewhat milder degree, in which force had before kept them. The teachings of Christianity produced a vast amelioration in their condition among such nations as came under its sway, yet only in an indirect manner. This code did not seek in any way to change or destroy the laws it found prevaling among such peoples as accepted it. It only took the existing order of things, and introducing a purer morality and more elevated standard of faith, gave to the higher elements of the political and social organizations a vitality and power of development which before they had lacked. It enabled them thus to initiate and carry to perfection changes for the better which in itself it was never intended to propagate directly, but only by its purifying and refining influence upon the individuals composing masses. This influence was felt by both males and females and necessarily led to a relaxation of the bonds in which the latter were held to the former. With the purification of the Christian religion, there has come a corresponding elevation of women, not only in her social relations, but notably, in these latter times of human advancement, in her political status as well. In modern times we see and feel growing up among us, the germs of a vast power which seems destined to carry to a higher development the pure morality of Christianity—that scientific philosophy whose co-operation with religion marks the dawn of a new era in the

world's history. This philosophy it is that must make possible the final step in the amelioration of woman's position in the world, and to which she is already, albeit somewhat blindly, stretching forth for help and strength. And when the last, and in some respects the worst, form of human slavery, the social and political subordination of woman to man, has been abandoned, we may be able, but not now, to know what is her real power and proper sphere of work, and to see the elevation of both sexes by reciprocal influences, instead of the present spectacle of mutual injury consequent of one half being kept in subjection to the other. Women are every day in increasing numbers making their way into the liberal professions, which will probably be the field where they will first strike for an entire equality with men, because here the "capital in trade" is knowledge, and does not, like a monetary capital, require training and even greater skill to retain than to obtain in the first place. And it behooves the male members of these liberal professions to lend all the assistance in their power to this movement, for it is one that seems destined to work a more beneficent change in the constitution of society than any of the other social or political movements now in progress.

And first as to her intellectual capabilities. It is true that no woman has as yet attained to the highest pinnacle of success in philosophy, or science, or art—there has never been a female Newton, or Shakespeare, or Locke. But it should be remembered it is only in very modern times that the edicts of society, more potent sometimes than laws, and decidedly so in this case, have permitted women to compete in these departments, and that even now the number of women who are engaged in them is, compared with the number of men, quite small; and it has been only once in a long series of years that a first-class mind, a genius in any of them, has been evolved. A genius is one whose surer and more comprehensive vision enables him to perceive harmonies in things that to the ordinary observer seem isolated and having nothing in common, and to have a truer estimate of their proportions and relations than is possible to the mass of mankind. In art a genius may arise at any

time, and is more likely to arise when the spirit of the times is such as to attract towards the study of art trained and educated minds—as in those ages when artistic excellence was a sure passport to the favor of princes, to social and even political preferment. But philosophy and science growing by a process of evolution, a genius in these departments of knowledge is also the result of a process of evolution, and cannot exist until the previous labors of many workers in detail, himself perhaps one of them, have brought together the material of scattered facts in which his keener vision discovers before-hidden harmonies, which then he generalizes into comprehensive law. Once in a century is often for a genius to arise, and it is therefore unfair yet to effect one among women. But in various departments of science some of them have already attained rank next to the highest, and shown that in defiance of the opposition which only men are trained to encounter, together with difficulties and adverse prejudices peculiarly their own to overcome, their intellectual and moral qualities have enabled them to triumph where many men have failed. Now for the successful study and practice of medicine it is not *necessary* that the intellectual capabilities should be of the very highest order. All that is requisite, is the average amount of intelligence, which however ought to be trained (but unfortunately in this country in most instances is not,) by a superior preliminary education. There is no reason to believe that women have not, and in fact there is every reason to believe that they have, intellectual capabilities quite equal to those of men, though perhaps they do not develop in exactly the same direction; and probably their difference in this respect is such as would peculiarly fit the former for the *practical* branches of medicine, while men would excel in the branches involving patient experiment and research. One of the chief differences between men and women lies in her management of affairs, not usually being so much the carrying into practice any favorite theories or preconceived line of action, as it is the result of the general correctness of her infinitive perceptions of actual present facts and their relations. In other words, her mental constitution tends to-

wards the practical, towards making her acquirements useful in the conduct of every-day-life. And the best physician, the requisite education being pre-supposed, is the one whose quick intuitions make the good diagnostician, and who leans towards the practical as distinguished from the purely theoretical.

Coolness and self-reliance are traits of inheritance, of education, of practice, more than of sex; and this is as true of the moral as of the physical traits. History abounds in examples of women who have shown them in their highest perfection, despite the fact that their habitual training all tends away from independence of thought and action. We may instance their usual cool behavior at sea in times of danger and shipwreck, as compared with the frequent exhibitions, under similar circumstances, of terror and loss of self-control in men. Of course this is no parallel of what ever occurs in medical practice; but there are plenty of appropriate cases. Mesdames Boivin, La Chappelle and Dugès were obstetricians of long and extensive experience, and certainly some of the emergencies which arise in this department of medicine are among the most trying the physician is ever called upon to encounter, and require the highest qualities of nerve and skill to meet successfully. There should be no pretense that women are not endowed with the necessary natural qualifications for this sort of practice, because they are constantly and successfully attending to it, besides going through with it in their own persons—and if fit for this, then they are fit for any other.

As for the drudgery, the physical work, it is only necessary to refer to the fact that in some parts of the world women perform manual labor of the same sort as men—as field hands on the farm, and in other mechanical callings. The amount of daily work done habitually among us by female domestic servants and by female nurses, is above the average required of physicians. There can be no question of women's ability to meet all demands of this sort that the practice of medicine can make upon them.

It has been said that the *morale* of the profession would be deteriorated by the admission of women to its ranks;

that they are less scrupulous than men as to the means used to gain any desired end, and that in the pursuit of reputation and money they would take the most direct and easiest method, disregarding codes of ethics and the rules which men have adopted to uphold the dignity of the profession. Admitting for a moment, for argument's sake, that this might be so, would they in this respect be at all worse than many male physicians are—than the men we see all around us and who to so great an extent give to the world outside the profession its idea of what a physician is and ought to be? Could they excel in iniquity the male abortionists who disgrace their title of doctor of medicine? Would they discover new methods of public puffing? Or could they devise any means of injuring their fellow-practitioners, or of debasing their calling that the men do not already practice? Certainly not. But we contend that there is no reason to think that women are really any less conscientious than men. In matters in which a woman has no direct personal responsibility, as in influencing her husband in a course of action, or advising with reference to business or political matters, she may, and doubtless often does, counsel the shortest road to success, without weighing scrupulously enough the means to be employed. This is because, having no responsibility in the matter, she does not care, and often, owing to the peculiar education women receive, does not fairly appreciate wherein lies the distinction between right and wrong in business affairs or public life. But men in similar circumstances act in a similar manner. Business men of high standing and unimpeached private honesty, yet constantly as members of corporate bodies, *e. g.*, as directors of incorporated companies, where the responsibility for actions rests not upon any individual member, but upon the body corporate as a whole, advise and assist in carrying out dishonest and dishonorable proceedings that in their private capacity they would shrink from as disgraceful. The freedom from individual responsibility is apt to give one a wonderfully easy and elastic conscience. It is an old saying that a corporation is a body without soul or conscience. Women in assuming the rights and privileges of active life

must accept also its duties and responsibilities, and there is no reason to anticipate that they would be governed by any lower moral standard than men adopt.

If it is feared that opening the door freely to women to study and practice medicine, would so flood the ranks of the profession that competition would drive many to illegitimate courses who now pursue an honorable career, the answer is, let the fittest succed and the others seek some more congenial calling. In the profession of medicine, as in all other learned pursuits, competition is the most potent incentive to study and self-improvement, to consequent success, and eventually to the elevation and advancement of the science and art. There need be no fear of too many doctors, and there is always plenty of room and a demand for good ones, be they male or female.

A collateral question, as to the best method of educating women to the doctorate, we have not now space to consider, but hope at a future time to devote to it a portion of our pages.

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ART. X.—*Code of Ethics Illustrated.*

"Dr. Charles Toland, a young surgical practitioner of this city, recently performed an operation in the difficult branch of the surgeon's art professionally termed Rhinoplasty. Some months since a young man residing at Gold Hill had a portion of his nose bitten off by an antagonist in a rough and tumble fight. His face was horribly disfigured by the mutilation, and by the advice of his friends he concluded to try the efficacy of Rhinoplasty. After making several unsuccessful applications to surgeons who desired to attempt the difficult job, he finally placed his case in the hands of Dr. Toland, who successfully performed the operation some ten days ago. The process may be described as follows: An incision was made in the forehead, and a portion of the cuticle of the proper shape and requisite dimensions dissected and turned down so as to exactly fit to the trimmed

edges of the abbreviated nozzle, and then retained in place by silver sutures to heal by "first intention." The edges of the incision on the forehead were drawn together and secured. On Sunday last the healing process had progressed far enough to admit of the withdrawal of the silver thread from the nose, the removal of the bandages, and the severing of the connecting link between the skin of the forehead and the portion turned down upon the nose. It was found that the operation had been remarkably successful, and the disfiguration effectually remedied. The success of the operation will go far toward establishing the young practitioner's reputation for talent and skill in the exercise of his difficult art, and would have been regarded as no slight triumph even at the hands of his stepfather, the eminent surgeon, Dr. H. H. Toland, of this city."

The above extract from the *San Francisco Chronicle* of Thursday, February 8th inst., bears intrinsic evidence that if not prompted by Dr. C. Toland, it was at least connived at by him. Under the Caption, "of the duties of physicians to each other, and to the profession at large," the Code of Medical Ethics reads, Art. 1, § 3: "It is derogatory to the dignity of the profession to resort to public advertisements, or private cards, or handbills, inviting the attention of individuals affected with particular diseases, publicly offering advice and medicine to the poor gratis, or promising radical cures, or to publish cases and operations in the daily prints, or suffer such publications to be made, to invite laymen to be present at operations, to boast of cures and remedies, to adduce certificates of skill and success, or to perform any other similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician."

A deliberate violation of the Code of Ethics in this way is not very uncommon even among physicians pretending to be honorable and upright members of the profession, yet it is so discreditable as to call for decided reprobation at the hands of all regular physicians, and particularly from a medical journal which advances any pretensions to being an upholder of the Code of Ethics, and untrammeled by party ties or quack associations. Dr. C. Toland may hope to profit in fame and pocket by the above puff, but he cannot by any violation of the Code expect anything from

honorable physicians, but merited loss of esteem. We had trusted, and still continue to hope, that this, with other forms of advertisement verging towards quackery, was on the wane in the profession of the Pacific slope. We but do our part in exposing and denouncing this species of irregularity, and call upon other physicians for their countenance and assistance therein. ***

APOLOGY.—We desire to apologize for the sentences in two of our advertisements in last number, which called attention to "proprietary medicines." It was an oversight to admit them and it shall not again occur. To continue to inform the public where such "quack medicines" or "secret nostrums" may be found, would be a violation of Sec. 4, Art. 1, of the Code of Ethics, in which under the title of "Duties for the support of professional character," we are forbidden "in any way to promote the use of them." It would also be a decided violation of good taste on the part of a journal pledged to support that code and use its best endeavors to elevate our professional standard. In regard to "*proprietary articles*" we have no objection. Bitters, schnapps, sauces, soaps, brushes and playing cards—patented or not—are not prohibited; but no more "Yerba Santa" *et id omme genus* for our pages. If any should think that we are splitting hairs on a fine point of principle, we refer to the article and section above mentioned, as well as to Sec. 4, Art. 1, on the "Duties of the profession to the public," each of which is contained in that code to which all honorable graduates profess to adhere, but which seems to have been perused by many of them about as often as the "man-of-the-world" studies his Bible.

Miscellaneous.

Art. XI. — *Consulting with "Irregulars," and Consultations Generally.*

A country lawyer, on being urged by a long-winded revivalist to attend his meeting in order "that we may know who are on the Lord's side," gave as a reason for declining that he was "engaged by the *other party!*"

This was candid, to say the least, and the reply had the merit of openly and frankly declaring his sentiments. We thought of him when reading the following from a daily paper:

"A large number of the leading physicians of Indianapolis, irrespective of school, have taken the preliminary steps toward forming a Medical Association, in which all dogmas are to be ignored, and to be members of which they will be obliged to consult with any member of the Association when asked, no matter to what school of practice he adheres."

This too, is eminently proper, for by so doing such men at once show their colors, and can claim the merit of honesty in this one act, even if by so doing they forfeit all claim to that virtue in any other respect. We are disposed to discredit the lay paper in one assertion, that "the leading physicians" are in the movement. If by "leading physicians" are meant those whose cards are the most prominent in the papers; whose wonderful cures are constantly being referred to; whose "remedies contain nothing mineral or poisonous," and whose many years of experience with hundreds of letters of reference are supposed to ensure miraculous skill, we agree that *such* "leading" men probably are the promoters of a move calculated to deceive the unwary, and give the impression that the medical millennium has at last arrived in which the wolf and the lamb are to *lie* together. We venture to assert, however, that the "leading" men in this move are those renegades, who, having barely succeeded in obtaining a diploma from some regular medical school more

anxious to graduate quantity than quality, did not succeed in legitimate practice; or even more capable ones, therefore more dangerous, who, by their intemperate habits or disgraceful mode of life, have forfeited the confidence and respect of the community, and are, consequently, in reduced circumstances, without principle sufficient to induce them to engage in honest practice; or that class of oily-tongued rascals who, with but an infinitessimal and largely diluted dose of medical knowledge, are ready to undertake cases, knowing full well their incapacity, and trifle with life and health until the case passes beyond their limited scope, when it is thrust on some honest man who must sign the death certificate; or yet worse, those men who, knowing absolutely *nothing* of health *or* disease, take advantage of lay credulity, recognizing that the people will greedily adopt anything peculiarly nasty or mysterious in medicine, *these* with "Indian Herb," Chinese and magnetic "doctors," "Kings of Pain," and "Ready Relief" inventors compose the "leading physicians" referred to. We call attention to the above card not because the right-minded profession will fail to recognize the quality of the "leaders," but because here, in our midst, are physicians called regular, who consult with any so-called doctor and are not honest enough to openly avow it. It has been remarked by strangers that every Californian who is not a "Judge" is a "Doctor;" rather put the latter title first, as more near the truth. From example or moral suasion if no higher principle, every Medical Society adopts the "Code of Ethics" of the National Association; every medical man on joining such society, is in honor bound to adopt its laws and observe them, and it is to such we appeal to sustain that code which is our professional decalogue. Art. IV, Sec. I, covers the ground as to who are "regular" or to be consulted with; and to exclude apostates, the National Association in '69, expressly specified *these* as irregular. Notwithstanding such positive prohibitions, it is quite common to hear and *know* that Dr. John Doe who is "of the old school" and member of a Medical Society, meets homœopaths or other irregulars in consultation; nay more, we do not think that the list of teachers in our institutions intended to impart a

knowledge of medicine and its collateral branches, which certainly includes ethics and etiquette, are entirely free from a suspicion that the name of some Judas greedy for his thirty pieces can be found therein. How can we expect the lay public to recognize the difference between regulars and quacks, when the "regulars" themselves ignore it? There is another cause for complaint on the part of those who endeavor to conscientiously adhere to the Code of Ethics. It is a want of that consideration or honesty which a gentleman has a right to expect when he calls another practitioner in to advise.

Art. IV, Sec. 10, says: "A physician who is called upon "to consult, should observe the most honorable and scru- "pulous regard for the character and standing of the prac- "titioner in attendance; the practice of the latter if neces- "sary should be justified as far as it can be consistently "with a conscientious regard for truth, and no hint or in- "sinuation should be thrown out which could impair the "confidence reposed in him, or affect his reputation. The "consulting physician should also carefully refrain from any "of those extraordinary attentions or assiduities, which are "too often practiced by the dishonest for the base purpose "of gaining applause, and ingratiating themselves into the "favor of families and individuals." In Art. V, Sec. 4, it says: "A physician ought not to take charge of or pre- "scribe for a patient who has recently been under the care "of another member of the faculty in the same illness, ex- "cept in cases of sudden emergency, or in consultation with "the physician previously in attendance, or when the latter "has relinquished the case, or been regularly notified that "his services are no longer desired. Under such circum- "stances no unjust and illiberal insinuations should be "thrown out, etc."

A leading physician in San Francisco told the writer that he had found by experience that he was limited in his choice of men with whom to consult, as he could not trust many on account of violations of these articles quoted. Such a condition of affairs could not exist if every practitioner was careful to observe ordinary professional etiquette. A sly insinuation often causes more to be inferred than would a positive assertion, and it is excessively mean, to say the least, to intimate what a person would not dare to declare openly; the same assertion applies to *all* irregular practice.

A man who cannot honestly gain his patients, should not belong to a liberal profession, and while he may acquire a certain celebrity with the lay public and gain wealth, he is sure to lose the confidence of the right minded profession who justly look with incredulity on every enterprise in which he engages, and are very slow to believe in the honesty of those who may desire to rescue the credit of any undertaking with which his name may be connected, from the suspicion that his principles may determine its conduct.

To our disgrace it is justly said that professional ethics are at a low ebb on this coast. The profession is divided into cliques, supposed to be led by such or such men, and into the mass of outsiders, composed the smaller part, of those who religiously observe ethics, and the greater, of those whose ethical consciences are elastic, liable to be stretched by politic or pecuniary considerations. Until a strict adherence to the Code of Ethics with a careful regard to the proprieties of professional etiquette is secured, we cannot hope for unity or real advancement. Let it once be understood that each county society will enforce a strict observance of these requirements and refuse to acknowledge as a professional equal any who will not join it being in honor bound to comply with its rules, and we will have, what we have not at present, a harmonious association of men in league against the enemies and degraders of a pure medical science. By enrolling their names they show their colors and we will know who are "among the faithful, and not retained by the other party." The excuse that "*old so-and-so* runs that society and I keep out," or that "*such a man* has all the say in this," would fall through, inasmuch as the remedy lies in the ballot, and with proper restrictions and inquiries on entering, a majority would inevitably be on the right side. Possibly, had our eastern brethren recognized that unity and harmony in the profession here, which certainly obtains to a greater extent elsewhere, California might have obtained last May what she surely was entitled to, the Presidency of the National Medical Association.

ART. XII.—*Obituary Notice.* By W. S. THORNE, San José.

The original article entitled "A New Observation—the Luxated Elbow," which appeared in the July number of the *Pacific Medical and Surgical Journal*, has already received a more extended notice than it merits. In the December issue of the same journal, I ventured in a brief review to point out what I deemed misstatements, if not inaccuracies of this "New Observation," and to repel unjust attack on Prof. Hamilton's admirable description of this lesion which had been discovered to contain "anatomical impossibilities and fallacious pathology." Notwithstanding a recent paper from the same source as the "New Observation," which exhibits more credulity than logic in support of the errors invented for Dr. Hamilton, I venture to predict that the claim to novelty of this "New Observation" will not be sustained upon impartial investigation. Several statements therein are manifestly incorrect, and the style of the author is not altogether consonant with scientific discussion or professional courtesy. In the subjoined letter from Prof. Hamilton will be found the opinion of that eminent surgeon and author, upon the article in question. It is quite improbable that the merits of the "New Observation" will ever again be discussed before so high a tribunal.

43 West-32d St., NEW YORK, Dec. 20th, 1871.

W. S. THORNE, M. D., Dear Sir:

In the Dec. number of the *Pacific Medical and Surgical Journal*, for 1871, I notice a communication from you in reference to Dr. Hudson's criticism upon my description of the incomplete inward dislocation of the Radius and the Ulna. I saw the original paper of Dr. Hudson, when it was first published, but never thought it worth while to call attention to its inaccuracies, inasmuch as they seemed too palpable to mislead any intelligent student; I am more than obliged to you, however, for having done it. All your statements are, I think, correct. I do not know Dr. Hudson, and perhaps I may do him injustice when I say that the misrepresentations of me in his communication, together with the lack of courtesy in his style, impressed me that he was more willing to injure my reputation than to advance the cause of science; yet I did feel that he had done neither. Thanking you again for your zealous defense of your old friend and preceptor, I remain, yours truly,

(Signed.) FRANK H. HAMILTON.

ART. XIII.—*Proceedings of the Alameda County Medical Association, Oakland, February 5th,* 1872.

Present—Dr. Van Wyck, President; Drs. Allen, Babcock, Bamford, Carr, Cushing, Holmes, Kittredge, Jno. Le Conte, Jos. Le Conte, Pinkerton, Sherman, Trenor.

The minutes of the last meeting were read and approved. Dr. M. W. Fish, of Brooklyn, was proposed for membership by Drs. Trenor and Babcock; and Drs. Pinkerton and Sherman proposed Dr. E. H. Pardee. The applications were referred to the Board of Censors. The Committee on Revision of Constitution and By-Laws reported through its Chairman, Dr. Pinkerton, and the Association proceeded to vote on each article separately. Finally the following was adopted as the Constitution, and the committee discharged from further consideration of the subject:

"ARTICLE I.—This Association shall be called the 'Alameda County Medical Association.'

"ARTICLE II.—The objects of the Association shall be: *First*—The cultivation and advancement of the Science of Medicine by united exertions for mutual improvement, and contributions to Medical Literature. *Second*—The promotion of the character, interests and honor of the fraternity, by maintaining the union and harmony of the regular profession of the county, and aiming to elevate the standard of Medical Education. *Third*—The separation of regular from irregular practitioners. *Fourth*—The Association of the Profession proper, for purposes of mutual recognition and fellowship.

"ARTICLE III.—The Members shall be graduates of a recognized regular medical college, and shall be in good moral and professional standing. They shall be proposed in writing, at a regular meeting, by two members of the Association, and may be elected by a majority vote at any subsequent meeting. They shall not be admitted to full membership until they shall have signed the Constitution, thereby agreeing to be bound by its provisions.

"ARTICLE IV.—No empirical or irregular practitioner, nor any practitioner who shall consult with or recognize professionally any such irregular practitioner, shall either be admitted to or retained in the membership of this Association.

"ARTICLE V.—The officers of this Association shall consist of a President, Vice-President, Secretary, Treasurer and Librarian, and a Board of Censors consisting of three, who shall be elected annually at the October meeting, by a majority vote of the members present. No member shall be eligible to the office of President for two successive terms.

"ARTICLE VI.—The Code of Medical Ethics, adopted by the American Medical Association in 1847, is adopted by this As-

sociation, and shall have the full force and effect of any article of this Association.

"ARTICLE VII.—It being considered that a proper sense of professional honor requires every regular physician to become and remain identified with the local association of practitioners in the county or locality where he resides, membership in this Association is based on the principle "once a member, always a member." A resignation of membership is therefore inadmissible. In lieu thereof, the right of any member in good standing to withdraw from active membership on removal of residence from the county, is acknowledged, with the understanding that the application be made at a stated meeting, agreed to by a three fourths vote of the members present, and that during the time of such change of residence, the member be not liable for dues and do not enjoy the privileges of membership. The Association hereby reserves the right of punishing violations of its regulations, with the concurrent vote of three fourths of the members present at any regular meeting, by reprimand, suspension or expulsion. No member who shall have been expelled shall be again admitted to membership without the unanimous vote of all the members, nor shall he be recognized by the Association as a regular practitioner of medicine while under sentence of expulsion.

"ARTICLE VIII.—No alteration or amendment shall be made to this Constitution excepting at the stated meetings in April and October. Every such alteration or amendment shall have been proposed in writing and read by the Secretary to the Association at a stated meeting, held, at least, three months previous to the above dates, and must receive the affirmative vote of three fourths of the members present, before its adoption."

Dr. Trenor reported a case of gunshot wound, which report will be found in the Surgical section of this number. Dr. Babcock reported that the man who shot the patient of Dr. T., had himself received three wounds from his opponent. One, a glancing wound over tubercle of second rib on right side, one *through* left forearm, passing between the bones without injury to either, and the other entering about two inches to the right of spine of sacrum and lodged; it still remains there (wound received 29th August last), with no inconvenience to patient. The probe was passed over four inches without discovering it.

Dr. Cushing moved that the fee table be amended so as to read: "Ordinary midwifery cases—from $25 to $100." Seconded by Dr. Trenor and carried.

Dr. Sherman suggested that committees shall be formed to report at intervals on such subjects as "Medical Topography and Diseases" of the county, on "Meteorology," etc., and moved the appointment of a committee of three who should report at the April meeting on a scheme for the

permanent appointment of such committees, with a view to the reports being published as a contribution from the Association towards the advancement of science; carried, and Drs. Sherman, Jno. Le Conte and Kittredge were appointed.

Dr. Kittredge was appointed to read a paper at next meeting.

On motion, the Association then adjourned to meet on the 4th March, at 8 P.M.

ART. XIV.—*Report of Meetings of the San Francisco Medical Society, January 23d,* 1872.

Meeting called to order, minutes of last meeting read and approved.

Dr. B. D. Dean, the ex-President, on relinquishing his Chair to his successor, Dr. Morse, read a very interesting valedictory address, in which he reviewed the actions of the Society during the past year, and the interest manifested by members during that time, as evidenced by the regular full attendance which has been recorded for every meeting. Referred particularly to the efforts of Dr. Bentley, who has been kind enough to furnish the Society with pathological specimens, and has presented from time to time results of his *post-mortem* examinations. Referred to the finances of the Society, and recommended the most rigid economy in the expenditure of the Society's funds, and that they should strive to anticipate a period when the Society should be the owner of the building in which its meetings shall be held. He spoke of the report of the Librarian, as showing that the Society already possessed the foundation for a Medical Library, said that the health of the members had been good during the year, and that no vacancy had occurred by death. Referred to the generous response of the Society to the call for relief of our professional brothers beyond the mountains, after the fiery ordeal through which they were called to pass. In conclusion, presented his hearty thanks for the courtesy and indulgence shown him during the year, and bespoke for his successor the same generous support.

Dr. Dean then introduced Dr. Morse, the President elect, who said that he had not made any preparation for a salutatory address; but that from the very complimentary manner in which the Society, by their unanimity, had elected him, he could not receive the honor without acknowledgment. He thoroughly endorsed the sentiments expressed by the ex-President, and hoped that at the end of his present term he should be able to render the same good report. The effect would be wonderful, if the physicians of San Francisco would unite for the purpose of strength, abolishing all little differences, and thus show the nobleness of the profession, and demonstrate our desires. The course would give new impulse, cause growth, and give us power in municipal affairs. If we are able in the coming year to advance these interests, he should feel hearty thanks to the members of the Society for their labors and co-operation. He referred to the labors for and the interest taken in the Society by Dr. Bentley, also to the gratuitous labor by the Secretary, Dr. Henry Gibbons, Jr., and recommended that the Society pass a by-law, furnishing him with remuneration in his official capacity, and hoped that the Society would concur with him in this act of obvious justice. He pledged to the Society a compliance with their wishes, and a fulfillment of the duties of the Chair to the utmost of his ability, and would be glad to follow any suggestions. He hoped that the Vice-President would co-operate with him, in seeking out and reporting cases of distress and sickness among members, in order to suggest measures of relief. The case of one member was reported who was at that time convalescent from an attack of rheumatism. This course would engender sympathy, and strengthen social and friendly ties among our members. He referred to the financial condition; thought that the funds should be increased, as we should have a home; recommended a resolution establishing a sinking fund, which might be increased by contributions, to be devoted to the acquisition of a lot and building; and that after the home had been provided for, a library should be established of some magnitude. This would give moral strength, and would advance the interests of science in our midst. He desired the Secretary or Trustees to draw upon the speaker for fifty dollars, to start such a fund.

Committee on Admissions reported favorably on the application of Dr. W. G. Wayman for membership. Dr. Cole asked what inquiries must be made by the Committee in order to make their report as to any applicant. The President here read the by-law which relates to this point. Dr. Cole explained his question by remarking that he thought

the Society had been too lax in the observation of the by-law referring to admissions, and wished the letter of the law to be strictly enforced as a measure for our self-protection. By vote of the Society, Dr. Wayman was unanimously elected a member.

Dr. Gibbons moved that the matter of a sinking fund be referred to the executive committee for report at the next meeting. Carried. Dr. Gibbons called upon Dr. Bently for the presentation of pathological specimens. Thought it the duty of the Society to listen to the records of science, rather than waste the time over little matters.

Dr. Grover moved that the address of the retiring President be presented to the journals for publication. Carried.

Dr. Holbrook moved that the thanks of the Society be the extended to ex-President. Carried.

Dr. Cole moved that the thanks of the Society be also extended to the Secretary and other retiring officers. Carried.

Dr. Gibbons, Jr., moved that the Librarian be instructed to procure the missing numbers of periodicals and have them bound. Carried.

Dr. Holbrook moved that the question of remuneration to the Secretary be referred to Committee. The Secretary refused compensation, but wished that the Society would authorize him to hold a certain margin for printing expenses. Granted.

Dr. Bently after thanking the Society for their terms of admiration and promising continued zeal, presented a few pathological cases, *viz:* Two cases of diseased hearts. The first an atrophied condition with dilatation of the vessels. The second, a case of excessive hypertrophy, the organ weighing 3 lbs. 12 oz. The doctor made some remarks about causes of hypertrophy, and classified them into concentric and eccentric, or internal and external causes. Also spoke of pericarditis and displacement as causes. Presented a case of large white kidney from young lady, *aet.* 22, who had died from albuminuria. Also, a case of soft cancer of lower portion of stomach near the pylorus. Cancerous deposits exhibited in the mesentery, liver and diaphragm. In this case a cicatrix was found in the upper lobe of left lung, supposed to have been occasioned by the resolution of previously existing tuberculous matter, also indications of pneumonia, which *was* possibly the immediate cause of death, on account of its connection with the diseased diaphragm. This patient was a man, *aet.* 42.

Another case was presented, from a man *aet.* 62, of encephaloid and colloid cancer of the mesentery and stomach. The tumor contained 3 gal. of fluid.

Dr. Holbrook asks how hypertrophy from pericarditis may be diagnosed. Some discussion followed, in which Dr. Soulé was the principal speaker, and by which it would appear that the diagnosis must be made by exclusion.

Dr. Holbrook rose to say that he did not consider his question answered; that in his opinion no signs could be relied upon.

Dr. Gibbons said the case of hypertrophy came to him about six weeks ago. There was no valvular disease, though a distinct murmur existed; was satisfied that it was a case of simple hypertrophy. The immense cancer case was that of an old man, who during life had no suspicion of cancer. Symptoms were: bad appetite; irregular bowels; no sallowness of skin; no pain or pressure; no symptoms of difficulty in the liver or stomach; cough came on within the last two days of his life, which was not very distressing; gradual sinking was apparent until death. He thought cancer of the liver very deceptive in the history of its course and symptoms. In regard to the heart case, he failed to discover any history of rheumatism, though the patient remembered to have had great pain in the pericardial region. Dr. Holbrook remarked as to the cicatrix in the lung, that it might have been occasioned by former cancerous depositions, which had undergone resolution.

Dr. Whitney made a few interesting remarks on the diagnosis of hypertrophy, and suggested the idea that in such cases the inter-costal spaces would be contracted visibly with each systole of an enlarged and fixed heart, and that this might be a useful symptom to indicate adhesions and subsequent hypertrophy. There might be concentric hypertrophy, and the condition united with eccentric causes. Each contraction would thus waste muscular strength, and increase the size of the ventricle. These observations had been suggested by his own actual experience.

The Secretary read a communication from Mr. Gray, Assemblyman, to Dr. Regensberger, stating that the San Francisco delegation did not concur in the ideas of the Society as to the public dispensaries, and that the Public Works Bill had been passed without the clause referring to them.

Dr. Whitney remarked that delegations from San Francisco were always happy to ignore the profession. Adjourned.

Meeting of February 13th. Minutes read and approved. After some current business as to the election of members, etc., the Secretary read the following communication:

"Dr. J. F. Morse.—*Dear Sir:* Your note is at hand, in "relation to the organization of one or two city dispensaries, "and the employment of two physicians for attendance on

"the outside sick poor. Mr. Gray having abandoned the "idea of introducing his bill, or rather the amendments to "a bill, where such a matter as you propose could be prop-"erly introduced, a bill for that special purpose would be "necessary. The present delegation are decidedly adverse "to supporting any such measure as you propose, without "its first having been approved of by the Board of Super-"visors, the proper initiative department of the city gov-"ernment. Should you, or your associates obtain the "approval of a bill upon the measure you propose, I will "introduce it here, and give it a cordial and willing sup-"port. Yours, etc.,

(Signed.) "DAVID MEEKER."

Dr. Buffum thought the writer correct, and proposed to the Society to follow the course indicated.

Dr. Gibbons thought that the delegation had merely avoided the question; that if the Legislature would authorize such a bill, that the measure could be acted upon by the Board of Supervisors at any time.

Dr. Regensberger moved that the committee be instructed to call upon the Supervisors, and request that they recommend to the Legislature to pass a bill, authorizing the municipal authorities to expend a certain sum for the establishment of dispensaries. Carried.

Dr. Gibbons, Jr., read a report of two cases of placenta previa, which elicited some discussion, principally between Dr. Gibbons, Sr., and Dr. Regensberger, the latter of whom maintained from the symptoms as described, that one of the cases was not clearly placenta previa, the child having been dead sometime before birth, but rather a case of premature detachment. Dr. Gibbons also arguing from the symptoms, thought it could be nothing else, as the hemorrhage had commenced two weeks before labor began. Not having the manuscript in our possession we cannot, unfortunately, present a copy of the report.

Dr. Bently presented some pathological specimens:

Case 1st. An encephalon with effusion of blood in the 4th ventricle, and in the fissure of Sylvia around the island of Reil. Following history from Dr. W. T. Johnson, who had attended the case, the patient had been exposed to lead poisoning until three months ago, when he was forced to desist from following his business, in order to receive treatment for his distressing symptoms. There was no general paralysis, but coma and difficulty of speech. Coma disappeared, and his power of conversation improved, until last Sunday, when he was found in the morning again in a state of coma, in which he expired about three o'clock of the same day. The *post-mortem* examination revealed the condition

mentioned above, with atheromatous and calcareous deposits in the walls of the larger blood vessels. The Doctor here made some remarks as to the location, in the hemispheres, of the faculty of articulation.

Case 2d. Abscess of the kidney; patient fell dead, and the autopsy revealed the abscess and great congestion of the brain; made some remarks about the connection which seems to exist between lesions of the kidneys and brain symptoms.

Case 3d. Adherent pericardium and hypertrophy of the heart. Case had been attended by Dr. Soulé, and had been diagnosed during life of the patient.

Dr. Soulé here made some remarks about the diagnosis of adhesions of the pericardium and hypertrophy.

Dr. Holbrook re-raised the question of diagnosis of hypertrophy *ante-mortem*, and said that notwithstanding Dr. S.'s instructions, he should not be able to make a perfectly certain diagnosis in the premises.

Dr. Soulé wished to know if the gentlemen denied that the condition *could be* diagnosed.

Dr. Holbrook replied that he did not believe a diagnosis possible.

Dr. Regensberger spoke in relation to druggists re-filling prescriptions without orders, and moved the Society direct a communication to the Pharmaceutical Society, asking them not to fill prescriptions the second time without orders, and declaring the intention of members of this Society not to prescribe with establishments where the request is not complied with.

Dr. Whitney moved an amendment, that instead of sending a communication, we invite the Pharmaceutical Society to meet us, and to discuss the question with them, in order to have a better understanding; spoke of the unfair and cowardly manner of some physicians, who, by taking a percentage from druggists, thus collect a fee from the patient, for which they have not the courage to ask.

Dr. Haine spoke at some length as to the ignorance and unreliability of some druggists, and also of the reprehensible habit of physicians who kept and sold drugs. The Doctor was here called to order for speaking irrelevant to the question.

Dr. Regensberger spoke further, thought that we were not able to correct all abuses, and added to his motion, that a committee of three be appointed, to draw up such a communication, and present it at the next meeting for discussion. Carried.

The Chair appointed Drs. Hewston, Regensberger and Whitney. Adjourned.

MONTHLY REPORT OF DEATHS IN THE CITY OF SAN FRAN-

By C. M. BATES, M.D., Health Officer. *No. of Deaths corresponding*

CAUSE OF DEATH.	Total	AGES.																	SEX.	
		Under 1 year	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	Over 100	Unknown	Male	Female
I. ZYMOTIC.																			
Scarlatina	3		1		1			1										2	1
Croup	3	1		1	1													2	1
Fever, Enteric or Typhoid	8			2	1	2	1		1	1								3	5
Fever, Malarial	8			2	1			2	2	1								7	1
Erysipelas	3								1	2								3	
Pyæmia	2								1	1								2	
Uræmia	2							2										1	1
Other diseases of this class	6	2		2				1			1							5	1
II. CONSTITUTIONAL.																			
Gout	2									1	1							2	
Other diseases of this class	3									1		2						1	2
III. TUBERCULAR.																			
Tabes Mesenterica	1					1												1	
Phthisis Pulmonalis	48	2	2				3	12	14	9	2	1	1				2	35	13
Hydrocephalus	4	3	1															3	1
IV. NERVOUS SYSTEM.																			
Congestion of Brain	4	1							2	1								3	1
Meningitis	3		1		1					1								1	2
Cerebritis	3		1			1			1									1	2
Apoplexy	4								3				1					2	2
Paralysis—general	4									2			1	1				4	
Convulsions	9	5	4															8	1
Other diseases of this class	6	1		1						1	3							4	2
V. CIRCULATORY SYSTEM.																			
Aneurism	5								1	2	2							5	
Hypertrophy of the Heart	2							1			1							2	
Valvular Disease of Heart	4								1	2				1				3	1
Dropsy	3	1		1								1						1	2
Heart Disease, undefined	9							1	1	4	1	2						6	3
Other diseases of this class	3								1	1		1						2	1
VI. RESPIRATORY SYSTEM.																			
Bronchitis	5	1		1	1			1						1				4	1
Pleurisy	1								1									1	
Congestion of the Lungs	2		1					1										1	1
Pneumonia	5	1							1	2	1							4	1
VII. DIGESTIVE SYSTEM.																			
Enteritis	3	1						1		1								2	1
Peritonitis	2						1	1											2
Liver Disease	1											1						1	
Other diseases of this class	6							1	2	2								5	1
VIII. URINARY SYSTEM.																			
Bright's Disease	1					1												1	
Kidney Disease	2									1	1							2	
Other diseases of this class	2						1			1								1	1
IX. INTEGUMENTARY SYSTEM.																			
Abscess	1										1							1	
X. OLD AGE	2													2				1	1
XI. NUTRITION.																			
Atrophy	5	3										1	1					4	1
Alcoholism	2								1	1								2	
Other diseases of this class	8	5							1	1		1						4	4
XII. ACCIDENTAL	5								4	1								5	
XIII. DISEASES INCIDENTAL TO FEMALES.	3								2	1									3
XIV. SUICIDE	3							2	1									2	1
XV. PREMATURE BIRTH	1	1																1	
XVI. SYPHILIS	4						1		1	2								3	1
XVII. CAUSES NOT SPECIFIED OR ILL DEFINED	10					1		4	1	2	2							9	1
TOTALS	226	28	11	10	6	6	7	31	44	45	16	10	5	5			2	163	63

CISCO, CALIFORNIA, FOR THE MONTH OF JANUARY, 1872.

Month of 1866, 256; 1867, 222; 1868, 228; 1869, 380; 1870, 263; 1871, 298.

RACE.			WARD.																NATIVITIES.			
Caucasian	Mongolian	African	1st Ward	2d Ward	3d Ward	4th Ward	5th Ward	6th Ward	7th Ward	8th Ward	9th Ward	10th Ward	11th Ward	12th Ward	Public Institutions	Casualties	Suicides	F'r'gnCo'nr's	Atlantic U. S.	Pacific U. S.	Unascertained
3			1							1			1						1	2	
3			1									2								3	
8										1		2	1	1	3			2	1	5	
4	4			1	2	2	1	2										4	1	3	
2	1		1			1									1			3			
2															2			1	1		
1	1					1					1							2			
6			1								2	1	1		1			3		3	
2								1					1						2		
3				1		1									1			3			
1								1												1	
39	8	1	2	3		6	1	4	1	2	1	6	7	3	12			32	11	5	
4									2		1	1								4	
4			1	1							1		1					3		1	
3									1	1			1					1		2	
3				1					1						1			2		1	
4						2								2				1	3		
4									1	1					2			3	1		
9			1						1	1	1	4			1					9	
6						2				1					3			3	1	2	
4		1							1						4			3	2		
2												1			1			2			
2	2			1		2		1										4			
3						1						1		1				1		2	
9			1	1					1		1	2	2		1			4	5		
3										1		1	1					3			
5				1					1				1	1	1			2	1	2	
	1					1												1			
1	1					1		1										1		1	
5											1	1		1	2			2	2	1	
2	1										2	1						2		1	
2											1				1				2		
1															1			1			
4	1	1					1		1					1	3			3	3		
1						1												1			
2											1				1			1	1		
2					1										1			1	1		
1											1								1		
2										1					1			2			
5										2	1	1			1			1	1	3	
2			1	1														2			
7	1					2		1					1		4			3		5	
5																5		2	3		
2		1						1				1			1			2	1		
3																	3	3			
1														1						1	
3	1			1											3			4			
4	6					4		2	1			2	1					10			
194	28	4	10	12	3	27	2	15	11	13	15	27	19	11	53	5	3	124	45	57	

REMARKS: It will be observed in the foregoing table, that the total number of decedents for the month of January, 1872, was 226, which is a decrease of 19 compared with the previous month (December). Of the class of zymotic diseases, there are 35 deaths against a mortality of 40 for the preceding month. Only 8 deaths from typhoid fever, while in the previous month we had 17 from that cause. The damp, chilling weather has very considerably increased the mortality of the consumptives. We have 48 deaths from that cause, against 38 for the month of December.

From all diseases of the respiratory organs, we have a mortality for January of 13, and from the same cause for the month of December, we had 22 decedents, making a decrease of 9 from the previous month.

From disease of the digestive system, for the month of January, we have a mortality of 12; while for the preceding month we had, from the same cause, 19 deaths, making a difference of 7 in favor of January.

Since our last report, it has been found necessary to quarantine the steamship "Constitution," from Panama, in consequence of her having had small-pox on board during her voyage. One passenger died from that disease on the 30th of December, and was buried at sea. As soon as it was ascertained by the surgeon of the vessel, that the patient was attacked by this disease; he was isolated from the passengers, so that none were exposed to the disease, excepting the father of the patient, and one cabin boy, who were placed in charge as nurses. The vessel arrived on the 2d of January, and was ordered to quarantine for two days, by the Board of Health, until all the passengers were vaccinated, and the vessel thoroughly fumigated; after which the passengers were allowed to land, except the father of the deceased and the cabin boy, who were sent to the small-pox hospital, where they are at present. The father of the deceased showed symptoms of the disease on January 9th, and on the 11th, the eruption made its appearance, evincing a mild form of varioloid, which is running a very favorable course.

ART. XVI.—*Books Received.*

We acknowledge the receipt of the "Transactions of the Medical Society of the State of California for the years 1870–'71"—the original report being reproduced, for convenience of reference. We were not before aware that the reading of an article before the Society *required* its publication, as seems to be the case on reference to the number before us. Without desiring to be hypercritical, we suggest that the same quality could have been found in the report without quite as much quantity.

We have also received the "First Biennial Report of the State Board of Health, for 1870–'71," and the "Report of the Health Officer for the City and County of San Francisco"—year ending June 30, 1871. In regard to the sewage of cities, in particular, each report is valuable, and will receive the endorsement of every medical man. Unfortunately, however, these reports are made to laymen, who invariably imagine themselves the superiors, in hygienic knowledge, of all of the profession, and on the plea of "useless expense" cut down all appropriations for keeping well, and freely approve of all bills for making the public sick.

It seems as if the people were destined to suffer physically and pecuniarily. This great evil arises from the attempt to make political capital out of everything. If a doctor is to be appointed to superintend a hospital, to construct an asylum, to ventilate a building, to disinfect a locality, or to perform an act for which any layman is, from ignorance, disqualified, he must be appointed by politicians! The record of his vote at last election must determine his medical ability! We by no means refer to the Reports quoted to prove this assertion in general, for it is an axiom; and while in cases of the Board of Health officers making *these* reports we see a partial exception to the rule, it only goes to prove the first assertion made, that political laymen think that they know more of hygiene than do physicians, inasmuch as they almost never act on the latter's recommendations. The necessity for a proper system of sewage has been often reported and insisted on, but to no effect. When some

of the family of a Supervisor or of a Legislator will, in the interest of science, get sick because of defective sewage, and the epidemic will providentially spread to other families of similar officials, we may hope that some measures will be taken to remove in part, at least, the evil. The afflicted fathers can console themselves with the thought that their reward will be the blessed knowledge that by making martyrs of their families they advance the cause of science, by proving the fact that inattention to the simplest laws of health is rewarded by total removal of that blessing. Like Artemus Ward, they "propose to put down this accursed rebellion if it takes all their wife's relations!"

The same tendency to ignore all professional suggestions is shown whenever the two elements are allowed to mix. The remedy seems to be, to let the medical societies of the locality appoint from their number the man having the requisite qualifications for the place to be filled. Place professional men where professional duties are to be performed, and, if necessary, let them be held responsible to the proper authorities, without the intervention of any layman. Never expect a man dependent for his retention of office on the votes of another, to do his duty if it interferes with the wishes of the other, the man who votes "early, late, and often."

ANEURISM OF THE ARCH OF AORTA

Page 129.

THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR MARCH, 1872.

Surgery.

ART. I.—*Report of Autopsies performed at the City and County Hospital, San Francisco, Cal.* By F. ENGELS, M.D.

Case 1. M. M., *aet.* 42, Ireland, hostler, admitted February 10th, 1871, with aneurism of the arch of aorta. His suffering commenced about three years previous, with severe cough, pain in the right shoulder, and dyspnœa. These symptoms, and the peculiar aneurismal thrill, the pulsating tumor recognizable behind the sternum, and occasional pain on deglutition were present on admission, and continued unaltered until about June 1st, 1871, when a swelling made its appearance directly behind the sternal notches, which increased rapidly, until it finally—in about six months—reached the enormous dimensions of 6″ high by 7¾″ across the base. The pulsating and peculiar thrill to the touch, and a murmur observable from a point directly beyond the aortic valves through the tumor, and down for some distance along the aorta, proved its nature. The same *bruit* could be heard at the back between the shoulders. Gradually the integuments became worn out by the constant impulse of the large column of blood. At first the skin be-

came fissured, and a drop of blood would slowly ooze out at a dependent point, where it finally gave way, and burst entirely, with an opening about ½″ in diameter, December 12th, 1871. About a gallon of blood escaped from the opening, and death took place about one half hour after the breaking of the tumor, although bleeding had ceased within ten minutes. Autopsy eight hours *post-mortem*, at which time rigor mortis had already formed. Pupils widely dilated; slight emaciation. The tumor had considerably decreased in size, and the opening was closed by a clot of fibrin. A few slight adhesions on both sides were found; the lungs themselves were perfectly healthy. Left ventricle contracted to its utmost, walls thickened, heart otherwise normal; valves healthy. In the middle of the upper wall of the transverse part of the arch, an opening of the size of a half dollar leads into a sac situated behind the sternum, and firmly adherent to it. This was about the size of two large men's fists, and extended upward and forward, having absorbed nearly one inch of the upper part of the sternum, and about as much of the second and third ribs. The extension of this tumor externally, produced the enormous tumor in lifetime, and was found nearly entirely filled with partially organized concentric layers of fibrin. The aorta beyond the tumor, and all the branches in the immediate vicinity, carotids, subclavian, etc., were atheromatous for a long distance. All the rest of the organs were perfectly healthy.

Institutes and Practice of Medicine.

ART. II.—*Neurological Studies.* By J. P. WHITNEY, M.D. of San Francisco.

LESSON FIRST.

We have the high authority of Copernicus for the assertion, that "it is by no means necessary that hypotheses should be true, or even seem true; it is enough if they reconcile calculation with observation." As it is the province of science to harmonize thoughts and things, to trace and codify the laws of nature, thus at once deducing and explaining the rules of art, hypotheses become indispensible as steps in the mental progression by which theories are proved, truths demonstrated, or systems established. Therefore when Newton said "*Non fingo hypotheses,*" he must either have attached a meaning to the phrase differing from that given to it by those who quote it to the universal disparagement of hypothetical reasoning; or he must have forgotten how much he owed to the hypotheses of preceding philosophers as theorems to the theories and demonstrations of the principia. Many a theory now regarded as a system of demonstrated truth was once hypothetical—a mere "guess at truth." The highest generalizations to which science has yet attained have been accomplished by steps from less perfect to more perfect hypotheses, till a true theory was rendered first possible, then probable, then certain. Science offers no example of a theoretic Minerva issuing full-armed from the brain of any intellectual Jupiter, ready, by the waving of her philosophic wand to dispel at once all the clouds that still so densely brood over many of the facts and phenomena of nature. At the birth of her true children hypothesis has usually presided, and criticism acted the pedagogue to their steps of evolution, to form comliness and usefulness.

Hippocrates, to whom we look for the extant knowledge of his time in all matters pertaining to the health of the human body and mind—whether that knowledge be physiological, pathological, or therapeutical—gives us little information about the ideas entertained on neurology, beyond the aphoristic statement that "a person is sane whose brain is undisturbed." This proves, however, that he believed the mind dependent on the brain, in health and disease. Plato, who embodied all knowledge and wisdom of his age that was accessible to Grecian philosophy, gives a tripartite mental physiology, ascribing appetite and lust to the liver, passion and emotion to the heart, and reason and judgment to the brain. Aristotle discarded the cerebral part of his master's psychology, teaching that the brain is a bloodless, inert organ, useful only to cool the heart, which he regarded as the seat of the soul, and the origin of the nerves, as the liver was the seat of life and centre of the circulation.

Erasistratus, one of the earliest legalized dissectors of the human body, first described the brain as the common sensorium, receiving into its meninges the sensory nerves, and issuing from its medullary substance motory ones to all movable parts of the body. A slight modification of this doctrine was taught by Fernelius many centuries later, in his writings against the doctrines and authority of Galen. The discussion of this question by the anatomists and physiologists of the sixteenth century, produced the experiments and observations which ultimately resulted more than two centuries later in the demonstration of incident and reflex fibres among the cerebro-spinal nerves, distinct in origin and function, as well as in the direction of the currents of influence which they respectively convey. Later in life, however, Erasistratus taught that both classes of nerves arise from the medullary portion of the brain at the base of the ventricles. That the spinal cord is only a prolongation of the brain; that the ventricles of the brain form, contain, and send forth the animal spirits through the spinal cord and nerves, to all parts of the system; that the heart forms the vital spirits, which it distributes through the arteries to the tissues and organs, which they endow with vitality.

Galen adopted and taught essentially the later doctrines of Erasistratus regarding the formation of the vital spirits by the heart, and their distribution through the arteries; also of the formation of the animal spirits by the brain, and their distribution through the nerves. But he goes beyond Erasistratus by suggesting a manner of conversion of vital into animal spirits in the following way, viz.: That the vital spirits were sent by the heart through the arteries to the ventricles of the brain, where they were mixed with air received through the ethmoid cells, and converted into animal spirits which the cerebral ventricles then sent forth by a systolic movement through the system. The diastolic movement of the brain he thought brought the air through the ethmoid cells into the ventricles to be mixed with the vital, for the formation of the animal spirits. The course of the animal spirits from the lateral ventricles of the brain to the nerves he thought to be through the passage now known as the aqueduct of Sylvius, leading to the fourth ventricle, where they entered the nerves. He thought the tubercula quadrigemina, and the vermiform process of the cerebellum, were valves for closing the passages of the animal spirits, thus regulating their course and directing their current to the parts of the body where they were most required. The fornix and corpus callosum he thought were simply arches for the support of the cerebral dome.

The ganglia of the organic nerves were first described by him, and he tells us that anatomists before his time knew nothing of them. After Galen, no notice was taken of these ganglia for more than twelve hundred years, till Falloppius again described them under the title of corpora olivaria. Later anatomists not only recognized their existence among the viscera and along the course of the arteries, but also found them on the posterior roots of the spinal nerves and the third branch of the fifth cerebral nerve. Vieussens published the first theory of their use, regarding them as little brains for engendering animal spirits out of the arterial blood with which they are so richly supplied. Winslow also thought them little brains for the distillation of animal spirits. Lancisi thought they had contractile coats for

pressing forward the animal spirits. Meckel thought their use was to combine and re-distribute the nerves in their course from the brain and spinal cord to the organs and tissues of the body. Johnstone and Tissot thought the office of the ganglia was to render parts supplied with nerves passing through them, independent of the will, giving as examples the movements of the heart and intestinal tube.

Near the close of the eighteenth century much was written about "organic sympathies," and the "sympathetic nervous system." Many views were put forth regarding the functions of this system and its relations with the cerebrospinal nerves. All speak of the sympathetic as arising from the cerebrospinal system, and continued to the tissues for the purpose of bringing them into sympathy with the brain and spinal marrow. Prochaska, of Vienna, put forth, about the year 1800, the best statement of the condition of neurology, and made some of the most valuable additions to its facts and observations. He adopted from Willis and Unzer a sensorium of the soul seated in the brain, only, which reflects conscious impressions; and a sensorium of the body, which occupied alike the brain, spinal cord, and ganglia and plexuses of the sympathetic. He believed that external impressions are felt by means of the brain, and adaptive movements executed by the muscles at the command of the brain. He thought agreeable sensations caused motions adapted to retain the impression, whilst unpleasant sensations cause movements tending to the removal of such impressions. This transition of sensations into adapted movements, though often taking place with consciousness and volition, does sometimes occur without the consciousness of the soul, and even in opposition to its will. He argued that external impressions can be reflected in the brain without consciousness, from the involuntary convulsions of voluntary muscles, which so frequently occur. He argues the existence of a corporeal sensorium, from the fact that monsters without brain or spinal cord live and grow, up to the moment of birth, which they could not do if life were entirely dependent on the brain or spinal cord. He therefore locates the corporeal soul in the plexuses and

ganglia of the sympathetic nerves. From the movements which take place in headless frogs and decapitated men, he also argues a power in the sympathetic independent of the conscious soul. He made some important distinctions between the two classes of voluntary and involuntary acts. The need of rest seems to be characteristic of those nerves only which are controled by the will, and not to the involuntary, which have to provide for the motions of the heart, respiration, and digestion, which must be carried on without intermission, night and day, for years. Notwithstanding these advanced views and arguments of Prochaska, when Legallois, in 1815, in a paper read before the Royal Society, said: "The sympatetic is not an independent nerve, but arises from the spinal chord, and exercises the peculiar office of bringing all the parts to which it is distributed under the motor influence of the chord," the Society's committee, in their report upon his paper, say that "all doubts are solved by it regarding involuntary muscular actions."

During the first quarter of the present century, the received doctrines of neurology might be summarized as follows: The nerves as long, white, medullary cords arise from the brain and spinal cord, and are distributed upon the organs of sense, the viscera, vessels, and muscles, and every part that is endowed with sensibility or the power of motion. That they were a few years before confounded with the various forms of fibrous tissues, such as sinews, muscular and tendinous fibres, is evident from the definition given of a nervous person, as "one who is active, strong and enduring;" the opposite of the one which would now be given, as "one who is weak, supersensitive and vaccillating." Ganglia, generally of an oblong shape and greyish color (as Galen had described them more than sixteen centuries before), were still described as existing in the course of these nerves without distinction. The same variety of views as to the use of these ganglia in the body, continued to be recited in standard works on physiology. Vieussens, idea, that they were little brains which engender animal spirits, had been before the world nearly one hundred and fifty

years, and received some countenance in a modified form from Monro, who regarded them as new sources of vis nervosa placed along the course of nerves (like relay batteries on a telegraph line), and perhaps was as widely received by physiologists as any; though some favored the views of Tissot and Johnstone, that they divest nerves of the influence of the will—and form points of redistribution of fibres to the parts to which the nerves thus rendered involuntary were in course for distribution. Objection was made to the last hypothesis on the ground that ganglia exist on many nerves supplying voluntary muscles and other parts that are under the influence of the will.

Such then was the state of neurology upon which Sir Charles Bell, in 1830, and Marshall Hall, in 1835, built those splendid theories of a respiratory and an excito motory department of the nervous system. Neither of these astute and sagacious men, however, added much to our stock of knowledge of the organic nerves or ganglia. Though Marshall Hall advanced the nutrient and secretory hypothesis as the main function of the organic ganglia and nerves, the reasons given for such assignment of function are far from convincing; and I shall endeavor to show that "nutrient and secretory," "excito-secretory," "vaso motor," "inhibitory," and nerves specially assigned to the conduction, of a sense of "tickling," of "pain," of "temperature," and the like, result entirely from their authors having approached the study of this subject of neurology from the wrong direction. I also hope by following strictly the course of anatomical evolution and arrangement of the nervous system, to be able to furnish better interpretations of numerous experiments and observations, than have yet been offered by those in behalf of whose hypotheses such experiments, observations, and interpretations, have been given.

[TO BE CONTINUED.]

ART. III.—*The Miasmatic Diseases of California.* By J. CAMPBELL SHORB, M.D., San Francisco.

[Continued from page 77.]

In the early part of 1861, while on duty at Fort Umpqua, Oregon, several unmistakable cases of miasmatic disease came under our observation. Within ear-shot of the murmurs of the ocean, breathing air which came fresh from the sea—the ocean on one hand, and impenetrable pine forests on the other—far removed from the stereotyped conditions associated with the presence of this disease, we found it difficult, well grounded as we were in our faith regarding its origin, to regard these cases as belonging to that class. We adopted many theories to explain their occurrence satisfactorily; we wished to consider them as forms of irritative fever, springing from cold, digestive disorders, hepatic miscarriage, or the hundred other causes that have a tendency to light up this form of fever in the system; but, the periodicity constantly recurring, forced us at last to adopt Quinine, which, though it rapidly solved the question of cure, still left the causation of the mischief buried in obscurity.

There is, on the northeast bank of the Umpqua River, at the distance of some two miles from the ocean, a small collection of small houses, which is dignified by the name of Umpqua City. The town is built on an irregular crescentic line of hills, some twenty or thirty feet above the level of the sea. These hills rise abruptly from the sand plain which stretches to the beach, and enclose the town and the fort, the town being at the extreme southwestern, while the fort lies at the northeastern end of the crescent. Midway between the two sites is a belt of pine forest, probably a quarter of a mile in width, beginning at the top of the ridge and running directly to the river, shutting off communication between the fort and the town, both of which were close to the bank of the river. We treated cases of intermittent fever both in the town and among the soldiers in barracks, but the occurrence of the disease was attended with different meteorological conditions. When the prevailing wind blew in from the ocean, from the north or west, over the sand plain which was always saturated with brackish water, the disease occurred in the town, but never at the fort, the pine forest seeming to absorb the *materies morbi*, or in some occult way to rob it of its poisonous influence. If, however, the wind blew from the south or east, across the river, the fort suffered, while the town enjoyed an immunity from the miasmatic visitation, the pine forest again appearing in the character of a protector.

It may be proper here to notice a conclusion which is legitimately drawn from the fact just stated in reference to the protective influence afforded by a wood. If the cause of miasmatic disease be so intensely etherialized—if it be wedded to the air, which carries it in the same intimate, yet subtle and mysterious manner with which light and air are mingled—if it exists in it, or is combined with it, as the color in indigo—it is difficult to understand how the forest, which perhaps softens, but certainly does not entirely check the currents of air, yet stays the progress of the miasmatic onset.

The union must be of a grosser kind; it cannot partake of the nature of a chemical combination, for that is very close. The forest, like a large mechanical sieve, sifts through the fresh air free from all impurities and disease, and holds the deleterious principle imprisoned on its thousand boughs and leaves, until it perish or disappear. The poison is too tangible—has too much mechanical volume about it, is too plainly material in its nature—long to escape the keen scrutiny of modern science. We feel almost certain that, ere long, either in the laboratory of the chemist, or on the wondrous field of the microscope, the dread secret will be discovered, the veil lifted, and man be supplied with the means to strike at the root of miasmatic disease with the certainty with which the needle turns to the pole.

But to return: the sand plain, to which reference has already been made, is of triangular shape, the apex being where the river meets the ocean, and the sides were washed by the river and the ocean. The plain was filled with quicksands from the beach to the fort, to that extent that crossing it on horseback or foot was at all times perilous. But, whenever an opportunity presented itself of examining the water, which welled up all over its surface, it was found invariably brackish, and the general presumption is, that it was universally so. Discarding the notion that the wind blowing from the ocean had in itself any morbific influence, we cannot help admitting that the *materies morbi* was generated from the surface of the salt sand plain, and carried by the wind directly into the town, while the pine forest protected the fort.

On this desolate plain of sand, there was not a living thing—not a blade of grass, a shrub, or flower—nothing that could by time or change of season perish and decompose—nothing that could afford the conditions for the evolution of paludal poison, which the older writers insisted upon. Towards the base of this triangular space, the plain became somewhat broken and uneven, and the little mounds

that started up here and there had occasionally upon them a small creeping vine, the botanical name or nature of which we never knew, far too small, isolated and insignificant for us to trace any connection between its occurrence there and the production of the fever miles away.

On the eastern and southern exposure of the fort there was no sand plain. Directly on the south was a wide river, flowing with a very swift current, on the opposite bank of which were the primeval forests, running up to high peaks, consisting chiefly of pine and fir and brushwood, from base to summit, impenetrable alike to man and beast. On the east were high sand hills, and five miles up the river a salt marsh of irregular oval outline, in its short, probably three quarters of a mile, in its long diameter four miles. This marsh, except at extreme low tides, was always covered with brackish water. Various marine grasses, shrubs and plants grew thickly upon it. It was composed entirely of alluvial formation, consisting of the washings of the banks of the river, carried off by the sharp abrasion of an unusually swift current, and deposited at this elbow as it were of the river. Whether the fever which occurred at the fort during the prevalence of easterly winds, which blew in that direction whatever exhalations this marsh generated, can directly be attributed to paludal poisons evolved there, is a question we cannot definitely answer. It must be borne in mind, it was during the winter that these cases came under our observation. The water of the river was as cold as ice, for it was fed by the snows melting upon the mountains, through which ran its tributaries, and the water backing in from the sea at flood tide, coming as it did, direct from the northern ocean, was scarcely less cold than the fresh. It is hardly reasonable to suppose that the marsh, covered almost constantly with this water at a low temperature, could evolve paludal poison, no matter how crowded it was with the remains of animal or vegetable matter. There was never heat enough to afford the essentials of decomposition. There was never any unpleasant odor on or near the marsh, even when the tide was out and the surface exposed to the direct rays of the sun.

On several occasions, when called by business to the opposite side of the river, we took care to examine the soil and its peculiarities at such places where the swift current undermined the bank, and left a surface more or less perpendicular open for inspection. The depth of the soil was extraordinary, varying from twelve to eighteen feet. It was very dark and exceedingly rich, enabling the sand, with which it was mixed in the flower and vegetable gardens of

the fort, to produce whatever was planted in great abunance. The soil could never have become dry, even at a distance from the river, high up on the sides of the mountains, for, during the rainy season, it became thoroughly saturated with water, and the underbrush covering it was so thick, and the trees so umbrageous, that the sun's rays or the winds of summer could scarcely be supposed to have any dessicating influence upon it. Soil of this nature, unprotected, exposed to a high range of temperature—a tropical sun, for instance—for some time, would unquestionably produce paludal poison; but here, where the thermometer, winter or summer, seldom indicated a temperature above 60 degrees Fahrenheit, the generation of miasmata was rendered extremely problematical. We never could satisfactorily explain, then, the cause of the occurrence of the fever at the fort, but, in reference to its presence in the town, we had but one theory to adopt—that it arose, in some way to us unknown, from the sand plain previously described.

This experience, we find, is not an isolated one. As far back as 1794, Dr. Ferguson, writing on the same subject, says: "The first time I saw intermittent and remittent fever become epidemic in an army was in 1794, when, after a very dry and hot summer, our troops, in the month of August, took up an encampment at Rosendaal, in South Holland. The soil was a level plain of sand, with perfectly dry surface, where no vegetation existed, or could exist, but stunted heath plants. On digging, it was found universally percolated with water to within a few inches of the surface, which, so far from being at all putrid, was perfectly potable in all the wells of the camp."

In a country where miasmatic disease is prevalent, and which is unusually level—where the plain stretches many miles, without a hill or valley to vary the landscape—no one may point out the exact spot at which the *materies morbi* is generated. It may arise at a long distance from where its presence is manifested, and with nothing to interfere with its transportation—no hill, or mountain, or forest, to check its advance—the wind may carry it to a very remote and very different localities.

The physician, therefore, in the performance of the double trust confided to him—to cure and prevent disease—must not confine his investigations, if for a time they are fruitless, to the exact neighborhood in which this disease is found. A more extended search will probably reveal the hidden source of pestilence. This once discovered, the physician may never be at a loss to suggest the means by which it may be rendered at once and for all time innocuous.

Our tour of duty at Fort Umpqua was too short to enable us practically to investigate such surroundings as could in any way be associated with the cause of the occurrence of the fever. We have already given our reasons for believing how in one instance, in the town, the mischief was in some way connected with the exhalations which arose from the sand plain; but here fact ended and theory began. To make that theory intelligible to all, which was most satisfactory to us, we premise a short description of a form of periodic disease occurring in this country, at many places at high elevations above the level of the sea, and known as mountain fever. How closely this disease approaches the coast we do not know. It comes on sometimes gradually, sometimes abruptly, in perfect health, with a chill of various degrees of severity, followed by a high fever, accompanied by intense headache, violent pain in the back and acute suffering about the joints; very much resembling, taking the eruption out of consideration, the Dengue of the South.

[TO BE CONTINUED.]

Gynecology and Diseases of Children.

ART. IV.—*Paper on Cancrum Oris.* By C. S. KITTREDGE, M.D., of Oakland.

[Read before the Alameda County Medical Association, March 4th, 1872, and by vote, requested for publication.]

During the years 1863–'64, it was my privilege to be the assistant of the late and much lamented Henry Whittelsey, M D., then the resident physician at the Nursery Hospital, on Randall's Island, New York City.

It was our fortune to have during the year, a large number of cases of cancrum oris, and our conclusions with reference to this peculiarly fatal disease may be of interest to the profession.

This formidable affection—which is a malignant form of Ulcerative Stomatitis—is a disease of debility, induced in

children under five years of age, predisposed to tuberculosis by a want of cleanliness, proper food, and care; and appears chiefly in those who are received into our hospitals from the alms houses, jails, and poorly ventilated lodgings —those dark, damp, filthy apartments, where congregate the vice and destitution of our large cities.

It appears generally as the sequel to rubeola, scarlatina, or some other debilitating disease. It occurs at all seasons of the year, but is most prevalent during the summer months. That it is a contagious disease, though in a limited degree, cannot be doubted, yet I believe that only those who are badly nourished, and of a tuberculous or scrofulous diathesis, are liable to be affected.

Mode of access. The system being in a morbid state, a simple shallow ulcer makes its appearance on the inside of the cheek, or between the two incisor teeth of the upper jaw, at the junction of the frænum labii superioris with the gums, causing the lips to swell rapidly and enormously, the teeth to loosen and drop out, and a general destruction of the parts; or, it may commence in the mucous membrane of the throat, or roof of the mouth, destroying everything in its course.

A description of this disease as it appears and progresses when commencing in the cheek—it most common form—will suffice to show all its characteristic features. The first thing noticeable, is a slight circumscribed swelling, hard, painless, red, tense and shining, resembling somewhat the sting of a bee. A very small whitish ulcer will now be found on the inside of the cheek, corresponding in position with the centre of the external induration. The breath is slightly fœtid, and an increase in the secretion of saliva is apparent. The ulcer very soon becomes ash-colored, and rapidly spreads, assuming a phagedenic character, discharging an offensive dirty-colored fluid. In two or three days, a black depressed spot appears on the outside of the cheek, corresponding in size and position with the ulcer within. In the course of another day, a small hole is seen in the centre of this gangrenous spot, through which ooze, drop by drop, the offensive acid discharge. The face now assumes

a peculiar ashy-yellow color, swells greatly, frequently to such an extent as to close both eyes; mortification goes on rapidly, often involving the whole cheek, and exposing the cavity of the mouth. The bones of the face may become affected with necrosis, the teeth fall out, and the little patient becomes a most frightful spectacle to behold, while the horrible stench that arises is well nigh unbearable. The constitutional symptoms are extreme prostration, with rapid, feeble pulse, increasing as the disease advances. The mind is usually clear to the last, yet the little patient lies in that listless and indifferent condition, so common with typhoid patients, and dies from sheer exhaustion.

The duration of this disease is from six to sixteen days, running a most rapid course when commencing in the cheek or throat, but somewhat slower in its progress when commencing in the gums.

Diagnosis. This can be mistaken for no other disease. Its first stage is that of ulcerative stomatitis; but it differs from the simple form of this disease in the marked and constantly increasing debility of the patient. It also speedily assumes its diagnostic phagedenic character, becoming gangrenous usually in two or three days from its inception.

Treatment. This disease demands prompt and energetic treatment. As soon as an ulcer shows itself, I commence with the chlorate of potassa, in from five to ten grain doses every four to six hours, and continue the administration of this medicine—which is justly considered almost a specific in the simple form of stomatitis—during the whole progress of the disease. We must not, however, rely wholly upon this remedy. Our chief hope lies in preventing the ulcers from assuming a phagedenic character, and to meet this end, the part should be thoroughly cauterized as soon as any signs of sloughing appear. The child should be immediately transferred to a room separate from all other children, and every care taken that the disease be not communicated to others, and all cases of stomatitis then in the hospital should be at once cauterized, even before assuming the characteristic malignant features. Of all the caustics, I prefer the solid nitrate of silver, for most cases; yet it

will often be necessary to use the acid nitrate of mercury, strong hydrochloric acid, bromine, or other powerful caustics; and even then we too often fail in our attempts to prevent the rapid spread of the disease. The mouth must be frequently washed with a weak solution of liquor sodæ chlorinatæ, ℥j to water ℥xij, and after mortification has commenced, a pledget of soft linen wet in this solution, should be constantly kept between the sore and the adjacent tissue. Tonics and stimulants should be freely given on account of the great prostration, and iron with bark or quinine in as heavy doses as the child will bear, and strong beef tea in place of solid food, which latter the child will almost invariably refuse to take, are the best.

Prognosis. Cancrum oris must be regarded as a peculiarly fatal form of stomatitis; in fact, every case that came under our observation, fourteen in number, when the disease was not checked before becoming gangrenous, died. Out of sixty-seven cases of stomatitis treated during the year, there were nineteen deaths, or twenty-eight per cent. This includes not only every case that was regarded as cancrum oris, but five others which, having the same characteristic features, proved fatal before the disease reached the gangrenous state.

The following report of cases, taken from my note book, may not be without interest:

Case 1. C. S., aged two and a half years, was admitted to the hospital, April 28th, with rubeola, having pneumonia as a complication. He recovered so far as to be up and playing in the convalescent ward, yet he did not gain strength.

June 10th. A small ulcer made its appearance at the junction of the frænum labii superioris with the gums, just between the two incisor teeth. I touched this ulcer with the solid nitrate of silver, and gave internally the chlorate of potassa in five grain doses every four hours, in addition to the tonic of quinine and iron that he had been taking for three weeks.

June 11th. The ulceration spreading. The two incisor teeth being very loose, I took them out of the way and again applied the nitrate of silver thoroughly to the ulcer.

June 12th. Upper lip much swelled; ulceration worse; applied bromine to the part. Wash the mouth frequently

during the day and night with the following: ℞ Potass. Chlorat, ʒiv; Tr. Myrrhæ, ℥j; Tr. Ferri Chl., ʒiij; Syr. Aurant, ℥iv; Aquæ, ℥ijss; *M.*

June 15th. Both cheeks swollen; upper lip protrudes; has lost another tooth. Bromine has been applied daily, and a cloth wet with liquor sodæ chlorinat. diluted with ten parts of water, kept constantly under the lip.

June 16th. The ulceration has eaten through the lip at the junction of the right ala of the nose, making a black gangrenous spot about the size of a dime. The lip is fully an inch thick.

June 18th. The gangrene extends about two inches in length, by an inch in width, including the end of the nose; the face is of a peculiar ashy-yellow color; both eyes are closed by the swelling; he is extremely weak.

June 21st. Died last evening. The mortification extends in a circle over three inches in diameter, destroying the whole nose, and including most of the upper lip. An autopsy revealed abundance of miliary tubercles throughout both lungs.

Case 2. J. T., aged two years, was admitted to the hospital, May 22d, with a light attack of rubeola. He gained no strength, and did not wish to leave his bed. During the first week in June, he passed by the mouth and nose, a number of worms—ascarides lumbricoides. He also had diarrhœa.

June 11th. His mouth is just beginning to be sore; a small ulcerated point is visible at the edge of the frænum labii superioris, at its junction with the gums; the gums are slightly inflamed and swollen. Touched the ulcer with nitrate of silver, and frequently during the day washed the mouth thoroughly with the following: ℞ Potass. Chlorat, ʒiv; Tr. Myrrhæ, ℥j; Tr. Ferri Chl., ʒiij; Syr. Aurantii, ℥iv; Aquæ, ℥ijss; *M.* Gave internally chlorate of potassa in five grain doses, every four hours, in addition to the tonic of quinine and iron which he has been taking for some days.

June 12th. The ulceration is spreading along the upper jaw, and the inflammation has extended to the gums of the lower.

June 14th. Mouth worse. Changed thewash to: ℞ Cupri Sulph., ʒij; Cinchonæ Pulv., ℥ss; Aquæ, ℥iv; *M.*, and apply witha brush.

June 15th. This morning I noticed for the first time, on the left cheek, a small red spot, about the size of a pin's head, in the centre of a large red spot about the size of a quarter of a dollar. The cheek is much swollen, and on the

inside, corresponding with the smaller spot, is an ulcer about the size of a dime, ash-colored, gangrenous, and emitting its peculiar offensive odor. Ordered the nurse to wash the mouth thoroughly with liquor sodæ chlor., diluted with four parts of water, and a cloth wet with this solution to be kept constantly between the jaw and the cheek.

June 16th. The small spot on the outside of the cheek has to-day the appearance of an ulcer. Cheek much swollen, hard and livid.

June 22d. The swelling has gradually diminished. A black spot has this morning made its appearance on the left side of the nose, an inch and a half in length by half an inch in width, extending to the middle of the lip. It is of a bluish-black color, and slightly sunken from the rest of the face. Have poulticed the face to-day.

June 26th. Died this morning. The gangrenous portion has gradually increased in size, covering most of the left cheek and lip. No autopsy allowed.

Case 3. S. J. M., aged three years and nine months, entered the hospital, May 28th, with rubeola, complicated with pneumonia. Nothing unusual occurred till June 9th, when she threw up at least three ounces of dark clotted blood. She was much debilitated, had eaten no solid food since her admission, having lived on beef tea and milk punch. *Ordered*, Tinct. Kino.

June 10th. Noticed that her breath was slightly fœtid, and on examining the throat found it covered with a dirty ash-colored substance apparently membranous. *Ordered*, Potass. Chlorat. to be given in four grain doses, three times daily.

June 11th. A small ash-colored spot, about the size of a quarter of a dollar, has made its appearance on the roof of the mouth, near the molar teeth; the one in the throat is rapidly spreading. ℞ Potass. Chlorat., grs. v; Tr. Ferri Chl., *gtt.* v; *M.*; every three hours; also, wash the throat and mouth with: ℞ Cupri. Sulph., ʒij; Cinchonæ Pulv., ℥ss; Aquæ, ℥iv; *M.*

June 13th. The throat and mouth are decidedly gangrenous, emitting a most offensive odor.

June 15th. She can swallow liquid only, and with great difficulty. For the past two days she has apparently been wandering in mind, yet she answers all questions correctly.

June 16th. Died this morning. Autopsy revealed tubercles in both lungs, which had commenced to break down. There was some hepatization. Stomach and other organs normal. From the mouth to the sternum was a mass of gangrene.

Case 4. H. McL., aged two and a half years, entered the hospital July 2d, with rubeola, which was soon complicated with bronchitis. She was closely watched for the first symptoms of stomatitis, as there were several cases of cancrum oris then under treatment, and as she was very weak. All went well till July 19th, when I noticed that her right cheek was hard, and swollen low down upon the submaxillary. An examination disclosed quite a gangrenous ulcer on the inside of the cheek. I immediately commenced with the following: ℞ Cupri Sulph., ʒij; Cinchonæ Pulv., ℥ss; Aquæ, ℥iv; *M.*; brushing over the ulcerated surface thoroughly twice daily, and also inserting a cloth wet with liquor sodæ chlorinat, diluted with six parts of water, between the cheek and the jaw, renewing it every two or three hours. The child had been taking a tonic of iron and quinine for a week, and I now added to it chlorate of potassa, giving twenty grains daily in divided doses.

July 22d. The swelling had greatly increased, and there was in the centre of the induration, a small black spot, which rapidly increased in size, being at noon of the size of a half dime, and at night as large as a dime, somewhat sunken from the surrounding tissue. In the centre of this depression was a small opening into the cavity of the mouth, through which oozed drop by drop the offensive discharge from the gangrenous portion within.

July 23d. The gangrenous part was fully an inch in diameter, and more sunken than before, the opening through it into the mouth being about a line in diameter; the face swelling greatly.

July 24th. The gangrene extended nearly to the corner of the mouth, being an inch and a half long and nearly as wide.

July 27th. The child died at five P.M. a most horrible object to behold. The gangrene had eaten out most of the cheek, extending from the symphysis to the angle of the jaw, and down on the neck, being over four inches in diameter. That portion of the lips and face not gangrenous, were very much swollen, closing both eyes, hard, and of a peculiar ashy-yellow color. There was no autopsy.

In the subjoined table, I have called the five cases where death occurred *prior* to the appearance of gangrene, malignant stomatitis, thereby placing none under the head of cancrum oris, where gangrene was not a decidedly marked feature of the disease:

TABLE.

No. of Case.	Sex.		Age.		Death occurred in	Primary Disease.	Complications.	Sequellæ.	Autopsy.
	Male.	Female.	Years.	Months.					
1	1		2	6	June	Rubeola	Pneumonia	Cancrum Oris	Miliary tubercles in both lungs.
2	..	1	2	6	June	Marasmus		Cancrum Oris	Mesentery filled with miliary tubercles.
3	1		2	7	June	Rubeola	Pleuro-pneumonia	Cancrum Oris	Tubercles in both lungs; vomiæ.
4	1	..	2	..	June	Rubeola	Diarrhœa. Ascarides	Cancrum Oris	
5	..	1	2	..	June	Rubeola	Pneumonia. Diarrhœa	Cancrum Oris	Tubercles in lungs, in abundance.
6	..	1	3	9	June	Rubeola	Hematemesis. Pneumonia	Cancrum Oris	Tubercles in both lungs; hepatization; breaking [down of the lung tissue.
7	..	1	4	..	July	Rubeola	Gastritis	Malignant Stomatitis.	Tubercles in lungs; congestion; emphysema.
8	..	1	2	6	July	Rubeola	Bronchitis	Cancrum Oris	
9	1		4	6	August	Rubeola	Pneumonia. Laryngitis	Malignant Stomatitis.	
10	1	..	4	..	September	Rubeola	Conjunctivitis. Pustular Oph.	Cancrum Oris	
11	1	..	3	..	October	Rubeola	Tubercular Pneumonia	Cancrum Oris	Tubercles in lungs.
12	1	..	3	..	October	Rubeola	Pneumonia	Cancrum Oris	
13	1	..	2	1	October	Rubeola	Pertussis. Tracheitis	Cancrum Oris	Tuberbles in lungs with large vomica.
14	1	..	2	..	November	Rubeola	Phthisis Pulmonalis	Malignant Stomatitis.	Tubercles in lungs; emphysema.
15	..	1	2	..	December	Rubeola	Prolapsus Ani	Cancrum Oris	Tubercles in lungs.
16	..	1	4	..	January		Hæmoptisis. Pneumonia	Malignant Stomatitis.	Tubercles in lungs; had been in hospital for two [years.
17	1	..	4	7	February	Rubeola	Tubercular Pneumonia	Malignant Stomatitis.	Tubercles in lungs.
18	1	..	1	8	March	Rubeola	Otorrhœa	Cancrum Oris	Tubercles in lungs.
19	1	..	3	..	March	Phthisis Pul.		Cancrum Oris	Tubercles in lungs.

The table shows, that of the nineteen cases recorded, twelve were males and seven females. Their ages varied from one year and eight months, to four years and seven months, averaging two years and eleven months. Six deaths occurred during the month of June, two in July, one in August, one in September, three in October, one in November, one in December, one in January, one in February, and two in March. April and May were the only months of the year in which no death occurred from this disease. It should, however, be stated that two of the patients who died in June, were sick with disease during the last week of May, their deaths occurring on the 4th and 6th of June, respectively. In sixteen cases, the primary disease was rubeola. One entered the hospital having phthisis pulmonalis fully developed, one with marasmus, and one had been an inmate for over two years, having suffered from a variety of diseases, hæmoptisis and pneumonia, immediately preceding the stomatitis. It will be noted that in most of the cases, the complications were of a pulmonary character, and all of a debilitating nature. Fourteen autopsies were made; and in every case, tubercles were found in great abundance. In thirteen cases, the tubercles were in the lungs, and in the other, the mesentery was filled with miliary tubercles.

Of the five cases in which there was no *post-mortem* held, three are known to have had seven pulmonic complications, and all being much emaciated, we have reason to believe that these too, would have exhibited tubercles, had they been examined.

These facts lead me to the conclusion, that cancrum oris has a close connection with tuberculosis; and, I believe, that it can exist only in children of a tuberculous diathesis.

Ophthalmology and Otology.

ART. V.—*Case of Injury to Middle Ear by Concussion, accompanied by Epilepsy and Symptoms of Congestion, subject to exacerbations.* By W. F. SMITH, M. D., of San Francisco.

Mr. Wm. M. N., *æt.* 32, journalist, presented himself December 15th, 1869, and gave the following history: Three years previous to the above date, he had met with an accident while driving along a macadamized road. His horse became unmanageable, he was thrown from his buggy, the the head striking the stony road, and the feet being entangled in the hinder part of the vehicle, he was dragged in this position for a considerable distance, the skull receiving numerous concussions. He was taken up in an insensible condition, and on examination was found to have received several injuries in various parts of the body. During the evening he became conscious, and complained of pain, due to his injuries; but did not refer to any uneasiness of the head. The following morning a state of coma ensued, which continued for a period of six weeks, during which time he could be roused and persuaded to take nourishment and attend to other requirements of life.

After the coma had continued some time, a seton was inserted in the nucha, as one item of the treatment. He remembered to have taken internal remedies during this time, but could not designate their character. The constant state of coma was followed by a comatose condition, which was manifested at intervals, and this condition was succeeded by great wakefulness and intense pain, extending entirely around the base of the skull; evidently hyperæsthesia of the brain, induced by a continued state of congestion of the meninges, which, when it became sufficiently diminished to relieve the compression that had produced the coma, was naturally followed by the hyperæsthe-

tic condition of the cranial sensitive nerves. A prominent symptom from the first was deafness; and *tinnitus aurium* appeared simultaneously with the pain and wakefulness. The seton then being considered ineffective, was withdrawn, and the treatment discontinued. He now enjoyed intervals in which he was free from pain, but became subject to frequent epileptic seizures. Subsequently, the head was closely shaven and blisters were frequently and freely applied to the entire cranial surface. This treatment was continued about five months.

The patient here described a number of interesting symptoms as to the condition of the brain, which occurred during the year following the accident.

At first, the fits of epilepsy came on without any premonitions, and as often as two or three times a week. Later, he was always forewarned by certain symptoms of which he readily learned the import; and when they occurred more seldom, he noticed that the brain was peculiarly active, and would find himself possessed of imaginative and argumentative powers, much greater than when he enjoyed ordinary health. This however, was always succeeded by great depression; the time would then pass in a dreamy manner, and he would lose his idea of the continuity of events; the memory also seemed to be weakened, and in passing from his home to the street, he would often forget the nature of his errand. Some time after this he began to travel, hoping to benefit the condition of his general health, and finally arrived in this city. On close inquiry, I could not determine that any of his physicians had ever diagnosed a fracture of any part of the cranium; and, in fact he thought that such a condition had never been hitherto suspected.

Present condition.—The hearing distance for the tick of the watch on the left side is not quite one inch; does not hear the watch at all with the right ear. Hears conversation only when the tone of voice is very loud, and the speaker quite near. As is often observed, there is here quite a seeming disproportion between the facility of hearing the watch and of hearing the voice, which is explained by the reflection, that the former is a measured sound of a single pitch which the ear is able to appreciate, and the latter involves

the necessity of discriminating a variety of tones or grades of sound (*timbres*) in the articulation of words. By the introduction of the catheter, I find the Eustachian tubes closed, or almost completely obstructed by thickening of the mucous membrane, apparently by masses of thickened secretion. There is rather good conduction of sound by the bones of the head, and the tone of the tuning-fork is quite well appreciated when placed against any part of the cranium, but it is heard much better by the left than the right ear. On examination of the cranium by light percussion with the tips of the fingers, I find two sensitive points, the one being immediately on the summit of the mastoid process of the right temporal bone, the other at the opposite extremity of the diameter, passing through the first point, and appearing near the sagittal suture on the left side of the head. From this fact and the history of the case, I suppose that an injury or lesion must exist in the dura mater at a point overlying the inner surface of the junction between the mastoid, squamous and petrous portions of the temporal bone, at which point a fracture of the inner table of the skull probably exists. Coma had existed, and epileptic symptoms are still quite annoying, in addition to the deafness. The supposition of fracture and injury to the dura mater in the position mentioned is not untenable in connection with the difficulty which evidently existed in the middle ear, as all anatomists agree that one or two, or even more openings exist in the petrous portion of the temporal bone, which transmit blood vessels directly to the cavity of the tympanum. It is well known that inflammation may be transported from the middle ear to the membranes of the brain, and the opposite may be easily conceived, and will no doubt be readily admitted. In fact, nearly all modern writers speak of inflammations passing in both directions, viz.: from the ear to the brain and from the membranes of the brain to the middle ear. Another cause of inflammation in the middle ear might be found in the possible injury of the mastoid cells and of the mucous membrane lining them. The pathological condition in the other ear (the left), which was slighter in its extent, was evidently due to congestion of the membranes at

the base of the brain. I immediately instituted local treatment by means of the eustachian catheter, which I practised daily, nearly always forcing the vapor of water impregnated with iodine, or with acetic ether, through the catheter into the middle ear. I also commenced the use of the bromide of potassium, in ten grain doses, three times per day, which I rapidly increased, until at the end of one month the patient could take one half drachm doses with benefit to the symptoms.

I occasionally used low currents of electricity, which were caused to pass through the external meatus, when filled with tepid water, the other pole of the battery (one of Trouvè's) held in the hand or in connection with the catheter.

Under this treatment the hearing distance improved, until on Jan. 15th, it was twelve inches for the watch on the left side, and two inches on the right; and on Feb. 1st, it was twenty inches, or nearly normal, on the left side, and four inches on the right. For nearly one year following the latter date, no epileptic symptoms occurred. At the time I first saw him, his weight was 132 lbs.; eight months later it was 180 lbs., and the general health and appearance were wonderfully improved. His energy and mental activity seemed to be thoroughly reëstablished. In January, 1871, he had occasion to visit England. After a fatiguing journey across this continent, he endured a very boisterous passage over the Atlantic, and on arriving in London, suffered from a return of some of the symptoms, viz.: intense pain in the head, several epileptic seizures, and a considerable deafness. He found now that the largest doses possible of bromide of potassium, even to the extent of ʒ ij, did not produce any effect. But the symptoms considerably subsided with rest and nutritious diet, until he again enjoyed his usual health, and the hearing power returned.

The question has occurred to me as to whether the bromide, like the iodide of potassium has a stimulating power over the absorbents, thus leaving permanent benefit in that it had favored the absorption of any masses of exuded lymph, or other products of inflammation which

had been deposited in or near the site of the lesion in the dura mater.

It affords me satisfaction to learn, in this connection, that the above diagnosis of the case was confirmed by Dr. Sharpland White, of the University of London, and Mr. Hinton, F. R. C. S., Aurist to Guy's Hospital, in consultation.

Since his return (February, 1872), I have tried the effect of the bromide of calcium, as recommended by Dr. Hammond of New York, and found it to be *nil*, or even to increase the cephalalgia. The hearing power is at present variable, though the benefit seems to be permanent.

There are many points in this case suggesting reflection that must be reserved for a future paper, which shall be devoted to a consideration of certain forms of disease of the middle ear.

ART. VI.—*The Intra-Ocular Serous Membranes and the Nature of Glaucoma.* By A. SICHEL, JR.

PART II.

[Translated in two parts from the Annales D 'Oculistique (July and August number, p. 19, *et seq.*) by Wm. F. Smith, M.D.]

[Continued from p. 98.]

"From a chemical point of view, this endothelium is very resistant to acetic acid and solutions of potash. The nuclei become scarcely more visible under the influence of acetic acid, but become notably swollen by a solution of potash. According to Eberth, the endothelium from the lymphatic sacks of frogs, presents exactly the same reactions.

"After all this, it becomes necessary to consider these fine glassy membranes as an endothelium, of which the cells are intimately united by their borders, and of which the protoplasm transforms itself into elastic tissue during their devolopment.

"Now that we recognize the endothelium of the suprachoroidian membrane, the intimate texture of the elastic lamina become very clear to us. Each of these is limited at its free surface by an endothelium, and these enclose

between their surfaces a net-work of elastic fibres and of pigment cells."

In reading this part of this beautiful work, bearing an exposition and a clearness so limpid, and of which we have seen here only a very pale analysis, numbers of reflections recur to my mind.

In effect, I said to myself, from the moment that it is demonstrated that there exists in the eye a serous membrane, it is not astonishing, that, as is the case with membranes of this order, in certain conditions, a hypersecretion of liquid may be there produced, as happens in the cavity of the pleural sack, of the arachnoid, of the peritoneum, and of the synovial sacks of the articulations. Finally, all the phenomena which torment those affected with glaucoma, whatever they may be, may be thus explained in a distinct and precise manner. What a brilliant consecration the theory of De Græfe here received! Was not this still a new proof of the sagacity and rectitude of his judgment? Had not his genius anticipated the microscope? Of all the pathological phenomena, nothing, not even the seat itself of the secretion had escaped him, and he was then amply justified in ranking glaucoma as a *serous choroiditis*.

What did it signify, in effect, from a clinical point of view, that the secretion took place from such or such a point of the choroid, as long as the truth remained that it was this membrane which furnished it, and that its accumulation on the interior of the globe provoked the exaggeration of the intra-ocular tension?

But as for a question of so much importance, no new data can be accepted without submitting them to a rigorous control, and confronting them carefully with the clinical facts, it is necessary, before all, to determine if all the symptoms of the different forms of glaucoma, as well as the divers prodromic signs of the disease, may find their explanation in the discovery of Schwalbe.

Finally another question, important in another sense, that of the mode of action of iridectomy, may it not be thus explained in a manner almost satisfactory?

I then began to reflect on these different questions. But in the first place, an important prodromaic sign, the rapid and progressive presbyopia, which seemed to me incompatible with this theory, prevented a conviction on my part. However, I finally found the key to this phenomenon, and soon I was seized by a conviction so firm and formal as to the entire question, that I had only one desire, that of imparting this conviction to my *confrères*, and of thus rendering to my illustrious and regretted preceptor a just testimonial, and

finally of putting to an end, if possible, the systematic opposition made to his doctrine by envious competitors or jealous rivals. This I shall now attempt.

1. *Prodromic period of Glaucoma.*—The first and most important prodromus, the presence of the *rainbow circles* around artificial lights, seemed to us peremptorily explained by the history we have reported of this Russian officer driven in the carriage by De Græfe. It is evident that it is necessary to attribute it to the serous hyper-secretion; and the intra-ocular liquid fills, for the individual affected by glaucoma, the same role that the vapor deposited on the glass windows filled for us.

2. The sudden and rapidly increasing *presbyopia*, another important prodromus, seems at first, as I have said above, not to accord with the theory. In effect, the choroid compressed in every part by the liquid, should be abnormally distended, and consequently *myopia* might rather be observed, by an exageration of the curvature of the posterior surface of the crystalline. But we should remember that it is generally in the night, during sleep, *when the accommodation is in repose*, that the prodromata make their *debut*. It is generally on awakening that patients perceive the changes which have come over their visual powers. If then the choroid is found compressed, it is not astonishing that the accommodation should be immovable. Farther, we must not forget that muscular fibres have been found in the tissue of the choroid, of which the contractility is certainly hindered by compression. It is the same with the fibres of Bruecke. Finally, the innervation of this muscle, itself, must be singularly impaired by the compression upon the ciliary nerves, whether by the action of the liquid, or by strangulation of these nerves, at the point where they traverse the sclerotic in order to enter the globe. Here then a perfectly satisfactory explanation is again found. The proofs are, I might say, almost super-abundant, and one sees, even, that no other effect than a lengthening (or removal of the near point,) of vision could be produced.

3. *The diminution in the peripheric extent of the field of vision* is explained by the compression of the retina, of which the *ora serrata*, its thinnest and most delicate part, naturally would feel the first effects.

4. *The spontaneous pulsations of the central artery* have been explained by Græfe* in a remarkable manner, which becomes still more authoratative, by the verification of his theory, in the proof of the possibility of the hypersecre-

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* *Archiv. f. Ophth.*, *Bd* 1, *abt.* 2, *p.* 299, *et seq.*

tion. It is, therefore, useless to insist further upon it here, and I content myself by referring to the memoir of De Græfe.

5. Finally, the *light and transient troubles of the vision* are sufficiently explained by the slight pouring out of liquid, which at first only brings about phenomena analogous to those we are able to produce on our own eyes by compressing them lightly and circularly with several fingers, or by the aid or an ophthalmostat furnished with a ring.

Let us now pass to the examination of glaucoma itself.

I. The *acute glaucoma*, periodic in its character, may be nothing else than the periodic pouring out, followed by complete re-absorption, more or less rapid, of a variable quantity of liquid which, provoking at first, tension of the ciliary nerves, determines neuralgic pains in the whole of the fifth pair, and principally in the ophthalmic branch of Willis. To this tension, soon succeeds compression of the ciliary nerves, having for consequences the anæsthesia of the cornea and paralysis of the iris. With the maximum amount of exudation of the fluid, will coincide the abolition of the vision, the re-establishment of which is due to the re-absorption of the liquid.

II. The *chronic inflammatory glaucoma* recognizes as its cause the sudden exudation of a quantity more or less considerable of liquid, not followed by complete re-absorption, and characterized, on the contrary, by successive exacerbations, determining the alternatives of clearness and obscurity of the vision. Here we have immediate compression more or less energetic, during a variable length of time, and at longer or shorter intervals, of the internal membranes, particularly of the retina, and finally destruction of the elements of perception, the optic fibres and nervous cells. From this cause, also, we have developed the excavation of the optic papilla by a pushing backwards of the substance of the nerve.

III. As to *simple chronic glaucoma*, essentially of the chronic type, it recognizes as a cause the slow and continued secretion of this same superabundant liquid, and the slowness itself of the pouring out, perfectly explains the absence or feebleness of the pains, of the transient obscurations of the vision, and the *absence of troubles in the refracting media*, troubles, the presence of which, on the contrary, are very easily explained in the acute glaucoma and the chronic inflammatory glaucoma.

IV. As to *glaucoma fulminans*, it should be attributed to the sudden and immediate exudation of the possible maximum of liquid, which determines from the first, a

compression of the retinal and nervous elements so energetic, that they are immediately annihilated, in such a manner that even after a re-absorption, which commonly occurs in the end, the vision remains forever abolished, and without remedy.

V. We should have in this, the key to a phenomenon unexplained up to the present time, the frequency of glaucoma consecutive to a number of ocular affections, in which this complication has only been explained up to the present by theories more or less contestable.

VI. Finally, and in the most important point, as we said above, it seems to me that we have in this same proposition an explanation almost plausible of the mode of the therapeutic action of iridectomy, which we can thus compare, in every particular, to that of thoracentisis in pleural exudations, and in general to that of puncture in the case of exudations in other serous cavities. We know that iridectomy furnishes brilliant results in acute glaucoma, and although the cure of this form of the disease is durable by this means, it is not always so in chronic glaucoma, simple or inflammatory. In fact, the cases of the kind, in which one is obliged to resort to a second iridectomy, are numerous, and the therapeutic action of the operation has been, for a long time, accepted as problematic, to the point that its insufficiency has been the motive on the part of Coccius to propose to substitute for the simple iridictomy, against chronic glaucoma, the entanglement of a portion of the iris between the lips of the wound, this manœuvre having appeared to its author to give results much more favorable.

* We remember also how frequently may be observed, after iridectomy in chronic glaucoma, at one time the slowness of the cicatrization of the sclero-corneal wound, at another the cystoid cicatrization. This itself gave place, in 1869, in the Society of Heidelberg, to a very interesting discussion. De Græfe again called attention to the facts given in his last and beautiful work on glaucoma,† which has been, if we are permitted the expression, "his song of the swan" (*son chant du cygne*). The readers of the *Annales* having had the good fortune of a complete translation of

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* *Ueber Entzundung, Glaucoma, und die Autopsie mit dem Augenspiegel, Leipzig*, 18—.

It is proper to remark here that the author has since then renounced this practice, having recognized the fact that the end was not always thus attained, and that even the contrary sometimes happened.

† *Archiv. f. Ophth., Bd. XV, abt.* 3, *p.* 204, *et seq.*

this *chef d'œuvre* of the master,* we shall content ourselves by referring to it, in observing only, that all the remarks that he made on the subject which occupies our attention accord marvellously with the actual anatomy.

It is sufficient, in termination, to say that for our part the action of iridectomy consists only in the evacuation of the exuded liquid, and that its action is entirely analogous to that of thoracentisis; consequently the operation has so much the more value, as it is practiced at an epoque near the debut of the disease; as the sclero-corneal incision is made at a point nearer the extreme limit of the anterior chamber; as the portion of iris excised is larger; and as this incision is carried to a point more encroaching upon the ciliary attachments of the iris. And if Coccius has maintained that the entanglement of a portion of the iris gives more satisfactory results than the simple iridectomy in chronic glaucoma, it is because the portion of iris thus entangled acts in the fashion of a piece of material which favors the gradual escape of liquid by capillary attraction, or by its sponginess.†

One more word in conclusion. If, as we hope, the lines which precede should succeed in definitely fixing the opinion in regard to the nature of glaucoma, we do not believe ourselves possessed of any merit in the matter. All the honor reverts to Schwalbe, and it will not be one of the least services rendered to the practice by the microscope, to have finally lifted the veil which has hitherto clothed this question.

It is none the less true, that to our dear and regretted De Græfe belongs, we repeat it, the honor of having anticipated the microscope. His doctrine of glaucoma will powerfully contribute, without any doubt, to render immortal this good man, and this grand genius.

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* *Annales d'Oculistique, T LXIII, p.* 39, *et seq.*

† These lines were already written when I learned that Quaglino had published quite a number of cases of glaucoma cured by the simple peripheric incision, without iridectomy.

Editorial.

ART. VII.—*Medical Education.*

The elevation of the standard of medical education has for some years attracted a great and increasing amount of attention in this country, and while there has been a profusion of plans recommended for accomplishing this end, the difficulties in the way of introducing the necessary changes in the time-honored course of instruction, and the fact that the professors of the institutions imparting instruction are interested in maintaining an easy standard of acquirements necessary for graduation, have up to the present been insuperable obstacles in the way of the needed improvement. In European countries, with which our intercourse is daily becoming more free and constant, the course of medical study and the requisites for a license to practice are so far in advance of our own, that a vast improvement is necessary with us if we are to assume any sort of respectable position in comparison with them. In fact, we have become accustomed to look to Europe for all the advances that are now so rapidly taking place in every branch of medical knowledge, but it is time for us, if we have any love for the good name of our country in this and kindred scientific matters, to make an effort to place her in a more honorable position. It is true, we believe, that certain German Universities have issued licenses to practice in this country to such of their students as desired to emigrate and practice here, but were not able to pass the examinations necessary to entitle them to obtain a license for practising there; which, although disgraceful to those institutions, yet shows the low estimate they place upon the respectability and acquirements of medical men here. Unfortunately, taking the whole body of our medical practitioners, regular and irregular, this estimate would not be far from the truth. The regular practitioners are the chief

parties responsible for the swarm of quacks that surround and infest them. They make no effort to improve or arrest the course of those medical colleges in our country that grant their diplomas to persons so utterly unqualified to practice, or even to study medicine, that the issuing of the diploma is little better than the licensing of quackery; and the public, not so blind and stupid an animal as we are apt to suppose it, seeing so little difference between the licensed and the unlicensed, patronizes which it pleases, without regard to our feelings. If regular physicians were as thoroughly educated as they ought to be, they would always command from the public all the deference they could lay claim to, and there would be a much] wider gulf than now exists between themselves and quackery, which would not then have the strength, the effrontery, and the success which at present characterize it. But as long as the professors of medical colleges are directly and pecuniarily interested in increasing the number of graduates, without due regard to their fitness to practice, so long will the uneducated, with others utterly incompetent, succeed in getting diplomas, which, in consequence of the ease with which they are obtained, are of little more value than those dispensed C. O. D. by a certain Philadelphian institution. The body that issues the certificate of competence and license to practice, ought to be entirely independent of the body that teaches and prepares the candidate for graduation. The diploma of such a body as the former would be far more valuable than one issued by the latter.

In European Universities, the course of medical study extends over a length of time varying in different countries from four to seven years—and these are years of actual work. Taking out the periods of vacation, the time devoted to study is from forty to fifty months, and this under the teachings of the ablest men in the profession, who are liberally supplied with every requisite for instructing by demonstrations, experiments and clinics. In this country, the student is usually called upon to attend only eight months of lectures, and nominally to study for three years before he can obtain a diploma. Of the teachers, it is enough to

say that they are worthy of their students. And if the collateral educational acquirements demanded of students are taken into account, the exhibit is still worse. In Europe, satisfactory evidence is always required that the candidate for graduation has had a first-rate preliminary literary and scientific education. The subjects upon which he must furnish proofs of proficiency are usually the Greek, Latin and French languages, *belles-lettres*, philosophy, ancient and modern history, ancient and modern geography, mathematics, physics, chemistry and botany. Other kindred branches of study must also have been pursued, differing in different countries. Compare this with the requisites for graduation in the great majority of American Colleges. How many obtain a degree of M. D. who cannot write or speak even their own language grammatically, and to whom all foreign languages, and even all branches of science, are as a sealed book; who step from the plough, the anvil, or the cobbler's bench into the lecture-room, and after eight short months of chaotic study (!) are M. DD., though unable to write in full the words for which these letters stand, or to know what they mean. Such cases are common. There are very many far worse. Testimony taken before a committee appointed by the Pennsylvania Legislature to investigate the almost public sale of medical diplomas in Philadelphia, shows abundantly that these documents were sold for whatever the sellers could get, even as little as twenty-five dollars, to any one who desired to purchase; no examination being necessary. It has even been shown that diplomas were conferred as a political consideration upon men whose votes were desired by some of the professors signing them. Diplomas in blank were peddled about, and a witness before the committee testified that he had been told by the possessor of one of these valuable instruments, that "it was all foolishness for a man to waste his time studying." Are not the "second-class" licenses of the German institutions above referred to far more valuable than many of ours? Taking into account the known prerequisites for medical study and the strictness of the examinations in Europe as compared with the laxity on both

these points that prevails in even our best medical colleges, are these German licenses so far below our best? It is disgraceful that we have even to consider such a question.

The report of the committee of the American Medical Association on Medical Education, presented at its last meeting in this city, and referred to the Committee of Publication, presents some excellent recommendations on this subject, and it is to be hoped, though not expected, that they will meet with general adoption. They advise "that no one should be allowed to enter upon the study of medicine, or having thus entered, with a view to graduation, to matriculate in any medical college, who cannot furnish satisfactory testimonials of his knowledge of the grammatical construction of his own language, with the rules of English composition, a fair acquaintance with English literature, with geography, history (ancient and modern), with arithmetic, algebra, and elementary geometry; to which should be added moral science, elementary chemistry, elementary physics, and a sufficient acquaintance with Latin to construe at sight a passage from some classical author; with the proviso, nevertheless, that in the event of any deficiency upon these points, such deficiency should be made good during the first semester of the curriculum, to be ascertained by examination by the Faculty at the termination of that division of the course." This is certainly the lowest scale of acquirements that should be admitted in any one about to enter upon the study of medicine; and to these ought to be added a knowledge of French or German, or both. The following resolution was also adopted by the Association, viz.: "*Resolved*, That each State and Local Medical Society be requested to provide, as a permanent part of its organizatian, a Board of Censors for determining the educational qualifications of such young men as propose to commence the study of medicine, and that no member of such societies be permitted to receive a student into his office until such student presents a certificate of proper preliminary education from the Censor's Committee appointed for that purpose, or a degree from some literary College of known good standing."

The above committee also recommend a radical change in the method of study of the various branches of medicine

and surgery, proposing a plan somewhat like that pursued in literary colleges and academies. According to this the term is extended to four years, of which the earlier portion is to be devoted to the elementary or fundamental branches, leaving to the latter portion the practical branches and clinical instruction. The schedule proposed by them is as follows:

I. FRESHMAN CLASS.

1. Semester:
   1. Anatomy, Special and Comparative.
   2. Elementary Zoology and Comparative Anatomy, the first only as a prelude to the second.
   3. Physics and Chemistry of inorganic bodies.
2. Semester:
   1. Normal Histology and Physiology.
   2. Organic Chemistry in its relations with Physiology.
   3. Materia Medica and Pharmacology.

II. SOPHOMORE CLASS.

1. Semester:
   1. Anatomy, continued.
   2. Physiology.
   3. General Pathology and Pathological Anatomy, and Pathological Histology.
   4. Organic Chemistry in its relation with Pathology and Pathological Products.
2. Semester:
   1. Materia Medica and Pharmacology, continued.
   2. Hygiene and Medical Police.

III. JUNIOR CLASS.

1. Semester:
   1. General Pathology, etc., continued.
   2. Anatomy, continued.
   3. Special Pathology and Therapeutics.
   4. Surgical Pathology and Operative Surgery.
   5. Obstetrics and Gynecology.
2. Semester:
   1. Special Pathology and Therapeutics, continued.
   2. Surgery, continued.
   3. Obstetrics, etc., continued.
   4. Medical, Surgical, and Obstetrical Clinics.

IV. SENIOR CLASS.

1. Semester:
   1. Special Pathology and Therapeutics.
   2. Surgery, continued.

3. Obstetrics, etc., continued.
4. Clinics, as above.

2. Semester:
1. Clinics, as above.
2. Psychological Pathology and Mental Diseases.
3. Medical Jurisprudence and Toxicology.
4. Special Pathology and Therapeutics.
5. Operative Surgery and Bandages.

With regard to the advancement of the student from a lower class to a higher one, it is proposed that this should be conditional upon his passing a thorough examination upon the subjects studied during the year; and it is recommended that there should be a minor examination at the end of the first semester of each year. In all European Universities the examinations are a prominent and very important feature in the course of study, and entirely a different matter from the almost farcical quizzes that are usual in our own institutions. We quote the words of the report of the Committee on Medical Education before referred to: "When compared with the arrangements and the accompanying facts detailed in the preceding remarks, no rational and unprejudiced mind can fail to see that the course pursued in the American colleges is but little better than an idle, degrading formality; a cheat upon the people, and a degradation to the profession." And this disgraceful condition of affairs may be expected to continue as long as *teaching* institutions are authorized to issue to their graduates diplomas that are also licenses to practice.

A ray of light is beginning to struggle through the clouds that have heretofore obscured the cause of medical education in the United States. The medical school of Harvard University, has recently adopted a new plan of instruction, which is closely similar to that proposed by the committee of the American Medical Association, although the published requirements for a degree make no mention of preliminary education, merely recommending that college students intending to study medicine pay special attention to the study of natural history, chemistry, physics, and the French and German languages, while in college. These requirements only include *three* full years of the study of

medicine; but these are years of study upon a plan, and to an extent unprecedented in this country. According to this plan, instruction is given by lectures, recitations, clinical teachings, and practical exercises, uniformly distributed throughout the academic year. This year extends from the Thursday following the last Wednesday in September to, and including, the last Wednesday in June, and there are during its continuance two recesses, of one week each. The course of instruction has been greatly enlarged, as well as extended in time, and arranged to carry the student progressively from the elementary to the practical subjects. Laboratory work, in the departments of anatomy, physiology, chemistry, and pathological anatomy, takes the place of, or is added to, the usual mode of teaching by lectures, and is insisted upon as much as attendance on lectures, each student having his place and time in the various laboratories, and in the microscope room. A series of thorough examinations has been arranged, extending over the whole period of study, and including all the main subjects of instruction. Students, other than the regular students, may pass these examinations all at once at the end of their course, or at several successive times. But every candidate for the degree must pass a satisfactory examination in every one of the principal departments of instruction at some time during his period of study. We hail the inception of the new plan by Harvard as an indication of vast promise, and would wish to see all other schools for medical instruction in this country adopt it, or something similar, either voluntarily, or through compulsion of future laws upon the subject. It is eminently one fitted for regulation by wise laws, and there is some reason to believe that the public has been so overdone by quackery, both licensed and unlicensed, as to call for and endorse such laws. In the New York Legislature, a bill has been recently introduced, providing for a Board of Examiners for the State University, who are to examine all applicants for the degree of M.D.—the examinations being in writing. The requirements are that the candidates must be over twenty-one years of age, of good moral character, and must furnish sat-

isfactory proofs that he or she has a competent knowledge of the Latin language, of the German or French language, of Greek grammar, and of the various branches of education taught in the normal schools of that State: the Board of Regents of the University to issue their diploma of M.D. to the successful candidates. The bill is stated to be very likely to pass. In the Legislature of this State a bill is now pending to regulate the practice of pharmacy, and meets with much favor; and it seems very probable that it will become a law. If our legislators are ready to regulate this subject, they ought to see the propriety of taking a step similar to that pending before the New York Legislature, the two subjects being cognate, but the proper regulation of the practice of medicine being of far greater importance than that of the practice of pharmacy. If none but thoroughly educated physicians were allowed to practice medicine and surgery, medical colleges would *ex-necessitate rei* quickly conform to the new requirements, and give complete courses of instruction.

Among the first results of insisting upon complete preliminary education in those about to study medicine would be a very great diminution in the number of students. The weak and incompetent medical colleges would go to the wall and cease to exist for want of nutritive pabulum; but the well organized and strong would grow stronger and do better work. The best institutions always attract the best students. To have a large proportion of incompetent students is a public confession of incompetent teachers. Now medicine is a compound science, made up of some of the others, and interlocked on all sides with them. Instruction in medicine includes and necessitates instruction in various of the sciences, and it would therefore seem proper that it should be imparted in the same institutions in which all the others are taught. There has grown up in this country a grand system of State Universities, an honor alike to the country and the times, and medical teaching ought not to be omitted from the subjects undertaken by them. A medical college which forms part of a great University will be able to exact the highest standard of preliminary education

from its students, ought to give them the best possible instruction, and send them out prepared to stand successfully a most rigorous and comprehensive examination. The guarantee of respectability which comes from such a connection would attract many to the profession who now turn away from it in disgust at the charlatanry that distinguishes so many of the teachers in our medical colleges; for it is to be presumed that the governing bodies of the Universities would exercise due care and discrimination in the selection of incumbents for the various chairs. If the Univiersity of the State of California had a well organized medical department, there can be little doubt that it would very quickly become the leading institution of the kind on the Pacific coast; and in fact it is to be hoped that it would be the only one, if it succeeded in attracting the best educated young men for students, and gave them the highest character of instruction.

With reference to the organization of a separate Board of Examiners, whose certificate of competency shall be the only license to practice medicine, it would apparently be very difficult to carry out this idea in practice; for the actual working of such a plan, either some general law would have to be passed by Congress, which is little to be anticipated; or else all the States would have to pass similar laws—quite a chimerical idea. At the meeting of the American Medical Association held in New Orleans in May, 1869, the following resolutions upon this subject were adopted, viz.: "*Resolved*, That this Association earnestly request each State Medical Society to appoint annually one or more Boards of Examiners, composed of five thoroughly competent members, whose duty it shall be to meet, at suitable times and places, for the examination of all persons, whether graduates of colleges or not, who propose to enter upon the practice of medicine in their respective States, except such as have been previously examined and licensed by a similar Board in some other State." * * * * * "*Resolved*, That each State Medical Society be requested to require its Examining Board, or Boards, to exact of every applicant for examination adequate proof that he has a proper general education, is twenty-one years of age, and has pursued the study of medicine three full years, one half of which time shall have been in some regularly organ-

ized medical college, whose curriculum embraces adequate facilities for didactic, demonstrative, and hospital clinical instruction." A subsequent resolution provides that those who seek to enter upon the practice of medicine without receiving a license from the State Board of Examiners, shall be treated ethically as irregular practitioners. This plan would only half do the work, and the irregular practitioners would be in so great a majority as to be able to set the regulars at defiance. Probably the best that could be done in the matter at present would be to induce the Legislatures of the various States to pass some such law as that contained in the bill now pending before the New York Legislature, and in course of time to extend the operation of the law so as to include all new comers, even those possessing a degree of M. D., who do not already hold a certificate from some other State Examining Board, *completely dissociated from any didactic institution.*

In conclusion, we shall quote again from the report of the committee of the American Medical Association on Medical Education: "To secure the results here referred to, it is strenuously urged upon the Association, in its corporate capacity, to send a strong memorial to all the State governments, earnestly appealing to them to provide for a uniform system of legislation, as regards the vital interests of the medical profession; to establish, as near as possible, a uniform system of medical education; to impose wholesome restrictions upon quackery under every form and device; and if there be those, as doubtless there ever will be, who are base enough to wish to impose upon the ignorant or the credulous, under the specious name of a *new system* of medicine, whether it be Homœopathy, Thompsonianism, Eclecticism, Animal Magnetism, Needle Cure, Lifting Cure, or Water Cure, to require these, *et omnes alii similes*, as is done in Prussia and Austria, to be thoroughly educated in scientific medicine, which done, they would be comparatively harmless; to no longer legalize a diploma from a college as a license to practice medicine in any of its branches; and, finally, to organize in each State, a competent Central Medical Board of Examiners, to be paid by the State, before which, as in the Army and Navy Boards, all, regardless of

where they may have graduated, shall be required to undergo a thorough and satisfactory examination before they can be permitted to practice the profession in any of its branches. Should this plan be objected to, it is then proposed that a similar board should be appointed, to be present at the *pass* examinations by the faculty, with the privilege of participating in the same, should they find reason to thus interfere." We would only add that the members composing such a Central Medical Board of Examiners, ought to be elected by the County Medical Societies, as the only method of keeping politics and political doctors out of the Board. *

AMENDE HONORABLE.

SAN FRANCISCO, March 15th, 1872.

To the Chairman of the Committee on Code of Ethics:

DEAR SIR: In the February number of the WESTERN LANCET, and also at a recent meeting of the San Francisco Medical Association, I was accused of being the author, or having sanctioned the insertion of an article concerning myself, which appeared in some of our daily papers.

The enclosed certificates will, I trust, relieve all doubts as to my connection with that affair, and I hope the injustice done me will be taken into consideration at your next meeting.

I am, your obedient servant,

(Signed) CHARLES G. TOLAND.

SAN FRANCISCO, March 4th, 1872.

I desire to state, for the satisfaction of all whom it may concern, that an article appearing in the *Examiner* of this city Feb. 7th, headed "Rhinoplasty," was inserted without the sanction, suggestion, or knowledge of Dr. Chas. G. Toland, or of any person connected with him. And I further state that I am the only person responsible for said article.

619 Green street. (Signed) GEORGE B. KEANE.

SAN FRANCISCO, March 13th, 1872.

Dr. C. G. TOLAND,

SIR: In reply to your inquiry as to where our information was received relative to an item in the *Chronicle* of February 8th, headed "Plastic Surgery," I would state that the same was copied, with some alterations in phraseology from the *Examiner* of the preceding day.

(Signed) D. E. MCCARTHY,
City Editor *Chronicle.*

With reference to the above, we would state that our article headed "Code of Ethics Illustrated," in the February number of the WESTERN LANCET, was mainly based upon two facts which came to our knowledge: First, that the report published in the daily papers was written by some one familiar with medical nomenclature and surgical operations; and Second, that the reporter of the case (whose name we did not then know), was present at the operation with Dr. Toland's knowledge. It now turns out that the gentleman who put the case in the *Examiner*, was a student (and therefore irresponsible) in the office of Dr. H. H. Toland, and was ignorant of even the existence of such a thing as a Code of Medical Ethics !! We cheerfully insert the above notes, and make the necessary explanation and *amende*, and trust that Dr. Toland may not again suffer from the hasty officiousness of indiscreet friends. The Chairman of the Committee on Ethics declined to consider Dr. Toland's case, as the above certificates showed there was no case to consider. *

ART. VIII.—*Criminal Abortions Again.*

In the first number of the LANCET, we took quite a decided stand on this subject, and while advocating stringent laws, stated at the same time that "laws will not stop it; but in a general knowledge of the truth of the dangers and

evil consequences of the act, there lies more hope." Elsewhere, in this number, we publish an Act, introduced by Dr. Pardee, to the Assembly, and which provides severe penalties for violations of its provisions. If any argument were needed to prove the necessity for the immediate passage of such an Act, we have it in the record of the Coroner's inquest on the body of Paulina Lindenberger, who died on the 5th of March, from "gastritis," as certified to by Dr. Behrens. There were suspicious circumstances attending the case, and the Coroner, Dr. Stillman, ordered the body to be exhumed, and a *post-mortem* examination to be made. The result of this inquest, was proof that the unfortunate girl died from the effects of an abortion, procured at the instigation of her paramour, and the weight of evidence pointed very directly at the above mentioned "Doctor" as the means by which she was assisted out of life. From the *Bulletin* of the 15th inst., we take the following charge of the Coroner, and verdict of the jury:

Gentlemen: There can be no doubt that Pauline Lindenberger died from the effects of an abortion produced by some one. It is for you to deduce whether the facts clearly implicate any person as the author of the crime. The testimony is written in full, and will be left with you. The law does not allow you to designate the degree of the crime charged. If you find any criminality in the cause of the girl's death, you must so state in your verdict, as well as give the name of any principal or accessories. It is your duty to boldly maintain the law, and it is not your duty to consider whether the person suspected may be convicted. The procuring of an abortion is a felony, punishable by imprisonment in the State Prison for ten years, and if death results the crime is murder. No mercy should be shown the miscreants who live upon the murder of the unborn, and it is no less a crime if done at the solicitation of the mother. To assist a suicide, renders one guilty of murder. In such cases it is only necessary to keep medical men from a patient who is dying, in order to defy conviction, and such cases can only be tried on the circumstances attending the death of the victim. A hurried funeral under a false certificate, and in a few days the case is beyond the power of man.

THE VERDICT.

After a short deliberation, the jury rendered the following verdict:

Paulina Lindenberger came to her death in San Francisco on the 5th of March, 1872, at 318 Minna street, from *peritonitis* and *metritis* (inflammation of the bowels and womb) induced by abortion. While the evidence is somewhat conflicting, the burthen points to H. C. F. Behrens as an accessory to, if not a principal in the crime. Signed,

SAMUEL WILLIAMS,	GEORGE R. SPINNEY,
GEORGE L. KENNEY,	EDWARD D. WRIGHT,
J. A. RICHTER,	GEO. H. RUSSELL.

A warrant was issued for the arrest of Dr. Behrens."

There are three principal points, to which we desire to call attention: *First*, The necessity of having a medical man as Coroner. In this instance, particularly, its value is shown. The medical testimony was somewhat conflicting, but the professional knowledge of the Coroner enabled him to properly charge the jury, and prevent the farcical verdict of death by the "hands of persons unknown." Now, while it does not *certainly* implicate any one person, it finds the *cause of death*, and leaves a clue to the Grand Jury, by which the Courts may be enabled to try *some one*. Again, a medical man as Coroner, will be more likely to lead a jury to the correct finding of a verdict, because, knowing the great value of an autopsy, he will order it sooner than the layman who regards the step as only valuable in giving some physician a fee at the expense of the county; whereas, a simple "looking at" the body, would have at once decided the cause of death. This stupidity actually took place lately across the bay, in a case of sudden death. A medical man was summoned to testify as to its cause, and on his replying that he found the man dead, and had made an autopsy, the acting Coroner, with great surprise, exclaimed, "Can't you tell by *looking at* the body?" while on another occasion, in which a man was found dead, and with a pool of blood issuing from his mouth, the same luminary refused to summon any M.D., knowing it to be "a case of hemorrhage from the lungs," although he was assured by a physician present, that the man had healthy lungs, but had died from a ruptured aneurism. The jury found the false verdict as charged. The medical attendant was not called on for testimony, because it would be useless *expense to the county;* but, in spite

of the Coroner, some medical men made an autopsy, at which the writer was present, and the aneurism was proven to be the cause of death, the lungs being perfectly sound; yet the public were, as far as the inquest went, perfectly ignorant as to the cause of death. The man might have been poisoned, struck on the head, or died from natural causes, and it was the duty of the Coroner to learn, and declare which. No medical man would have committed such an error. *Second.* We point with pleasure, to the concise, firm, and high-toned charge of the Coroner. He decides the question of abortion on which some doubt may have been thrown by the conflicting testimony; he declares the law, and the fact that a Coroner's jury is not a Court (as was assumed by an Alameda county jury in October, 1870, Annie Mooney case), but only an investigating body; and lastly, he directs that all accessories be pointed out. This brings us to point *Third.* Notwithstanding the quite positive testimony as to who was the instigator of the abortion, and that the abortion caused death, and that the Coroner charged that "if death results, the crime is murder." We do not see the name of said instigator and accomplice in the verdict "as an accessory to, if not a principal in the crime." The "Doctor" was arrested and held to answer, bail being fixed at $10,000; but what becomes of the equally guilty lover? The public must be taught that acquiesence in the performance of a crime, is criminal itself, if we are to give rise to a healthy public sentiment. It will not do to kill the female, imprison the abortionist, and let the paramour of the one, and the instigator of the other, go free, if we are to create a proper public feeling concerning the magnitude of the crime of fratricide, the risk of homicide next, and the immorality of promiscuous copulation in the community. It looks too much like a verdict of "served the girl right, for having a fætus to kill; served the 'Doctor' right for getting caught, and congratulation for the paramour, cause of all, in escaping, to try the same luck again!"

WE apologize for the scant appearance of our Surgical Department. The press of matter in the other departments, renders it necessary to cut off somewhere, and we give preference to original articles.

Obituary.—Passed Asst. Surgeon, EDWARD B. BINGHAM, U. S. N., died suddenly in Oakland, on the 24th ult., leaving a widow and one child. Dr. B., entered the Navy in April, 1864, and served successively on the James River; in the North Atlantic, Pacific and European squadrons, in New York, Philadelphia and San Francisco.

Obituary.—DR. JOHNATHAN LETTERMAN died in this city on the 16th inst., from chronic diarrhœa. The Doctor entered the U. S. Army as Assistant Surgeon in July, 1849; was promoted to Surgeon in April, 1862. He was the organizer of the medical service of the Army of the Potomac, and its Medical Director from 1861 to 1864; and resigned from the army in December of the latter year, having received an appointment to a lucrative position in this State. Dr. Letterman was twice elected Coroner of San Francisco. The funeral was attended by the Commandery of the Loyal Legion, of which organization he was an honored member. In our next, we hope to publish a more complete notice, together with the resolutions offered by the Commandery.

We call attention to the following:

CALIFORNIA STATE MEDICAL SOCIETY.

SACRAMENTO, March 20th, 1872.

MESSRS. EDITORS:

Will you please mention in your next issue, that at the request of Dr. Atkinson, permanent Secretary American

Medical Association, I have made arrangements with Mr. Goodman, of the C. P. R. R., for return tickets for delegates and their families, at one half local rates to Omaha, and with Mr. Wait, of the Chicago and Rock Island R. R., for tickets at the same rate. From Chicago to Philadelphia, arrangements have been made for return tickets at half price over the Pennsylvania Central and the Pittsburg and Fort Wayne R. R. If parties should wish to take the Great Overland Route *via* Niagara, they must give notice beforehand, to A. L. Wait, 208 Montgomery street, San Francisco.

I would also state that application has been made by me, for space in the projected exhibition, for California, but notice must be given through me, of what is proposed to be placed therein. The exhibition will include choice specimens and samples, of whatever is likely to prove interesting, through novelty, rarity, and superior character of drugs, medicines, and other remedial appliances, including chemicals and pharmaceutical compounds, surgical instruments and implements, preparations and objects in natural history, including human and comparative anatomy, morbid or healthy; also models, drawings, paintings, prints and printed works on medicine, surgery, and the associate sciences.

Yours respectfully,

(Signed) THOMAS M. LOGAN,

Chairman R. R. Committee for California.

Miscellaneous.

ART. IX.—*Vital Statistics: Illustrated by the Laws of Mortality from Cancer.* By PROF. JOHN LECONTE, M.D., of the University of California.

Mankind—when studied in numbers sufficiently large to eliminate accidental and individual peculiarities, possess certain *common qualities or properties*, which vary according to *determinable laws*. For example, the ratio of the sexes at birth, their relative weight at the same epoch, their gradual growth until the period of maturity, their attainment of a certain mean age, and their liability to death from various causes, are found to observe *fixed laws*; they are always the same under the same circumstances. It is

the enumeration, systemization, and generalization of these facts that constitute what has been happily designated by the illustrious Laplace, "Vital Statistics."

Until comparatively recent times, physicians do not appear to have sufficiently appreciated and employed the valuable instrument of statistical calculation. It is probably only by the assistance of such an exact test, that we shall eventually arrive at fixed conclusions, respecting the efficacy of different modes of treating disease, and the prognosis to be found regarding the probable issue of various maladies. In the history of the more demonstrative sciences, it will be found that it is the introduction and use of *accurate numerical measures*, that forms the prelude to the epoch of rapid advancement. The theory of gravitation in astronomy, that of definite proportions in chemistry, and that of luminiferous undulations in optics, are all *numerical* theories, susceptible of mathematical expression. There is, of course, no *absolute certainty* beyond the pale of pure mathematics, as probabilities pertain even to the most perfect of the mixed mathematical sciences; nevertheless, the extent to which any science admits of the application of numbers, may be regarded as a fair measure of its *exactness*.

In respect of a single individual, or a small number of persons, the uncertainty of the duration of life is proverbial. But the case is entirely changed when *multitudes* are concerned; and there are few classes of contingent events of which the results can be predicted with so little risk of departure from truth, as the average age to which the lives of a considerable number of persons will be prolonged. Various as are the causes operating in the production of disease, it is now demonstrated that mortality is subject to a *law*, the operation of which is scarcely less regular and certain than that of gravitation. Deaths and their causes are scientific facts, admitting of mathematical analysis and medicine, like other natural sciences, is beginning to substitute numerical expressions for crude hypotheses and vague conjectures. Our existing means of observation, and the present state of mathematical analysis, are still too imperfect to enable us to trace the elements of the human body through the cycle of organization; but these same obstacles are encountered even when dealing with the inorganic atoms of chemistry, and the multifarious phenomena of meteorology. In this, as in all genuine sciences, our knowledge becomes real and scientific, only in so far as it is *verified* in particular facts, and thus established in *general propositions*.

Of late years, such advances have been made in the science of pathology, and the systems of registrations have been so much improved, that we may reasonably hope, before long, to secure results of the most interesting and useful import to the medical philosopher. Indeed, on many important points, valuable deductions have already been drawn from the discussion of statistics of mortality. But it appears to me, that in discussing the *available statistical data*, medical writers *have failed to obtain from them the true value of the facts contained in the numbers*. It is to *this aspect of the subject* that I desire to direct the attention of the medical profession of this country. The *specific point* to which attention is drawn, *is the necessity of estimating the relative tendency to special diseases, by comparing the mortality with the number of persons living*.

In comparing the general mortality of different countries and cities, this method is usually adopted; and most valuable results have thus been secured. But when the *relative mortatity from different diseases* is discussed, it is usual to make the *total mortality* the basis of comparison. Such estimates may give rise to the most *erroneous* conclusions. For example, in London, during the last century, the total mortality has decreased from 1 in 20, to 1 in 40 of the entire population at the two extreme periods. Hence, assuming the ratio of deaths from some special disease to the number *living* to have been *constant* during this time, the proportional results deduced from a comparsion of the total mortality at the end of the century with the number dying from this particular disease at the same epoch, would apparently indicate a *duplication* in the mortality from this disease in 100 years; when, in fact, there had been *no real* alteration.

In like manner in discussing the influence of *age* on the mortality from any given disease, it is very common to prepare tables of the number of deaths at each age; and in some instances, these numbers have been assumed to represent the *relative tendency* to the disease at different ages. This is a very serious error; for it must be borne in mind, that the number of persons *living* at different ages is very far from being *equal*.

In illustrating the importance of taking the *number of persons living* as the basis of numerical comparison, I have, for several reasons, selected *Cancer*:

1st, Because, in relation to the influence of *age*, it furnishes an *extreme case*, and thus affords a *glaring* illustration.

2d, Because, in several other respects, it also furnishes a good example; and,

3d, Because the *arithmetical* portion of the work (by no means an insignificant labor), was performed by me many

years ago; so that the population estimates, as well as the numerical comparisons are at hand.* It would have been more satisfactory to have included in this discussion, the rich and precious mortuary data which have accumulated since these calculations were made, but, inasmuch as, at present, they are not accessible to me, perhaps the use of the *old* statistical data may serve to illustrate the point to which attention is directed.

1. *First*, with respect to *Age*.

The mortuary data illustrating the influence of *age* on the development of *cancer*, are drawn from a memoir, presented to the Academy of Sciences, of Paris, during the year 1843, by M. Tanchou. (*Gazette des Hopitaux*, for July 6th, 1843.) It embraces 9,118 deaths from cancer, which occurred in the Department of the Seine, in France, during the *eleven* years from 1830 to 1840 inclusive:

TABLE 1.

Age.	Males.	Females.	Both Sexes.	Ratio of Males to Females.
1 to 10 years	9	14	23	1 to 1.55
10 " 20 "	13	13	26	1 " 1.00
20 " 30 "	62	169	231	1 " 2.73
30 " 40 "	190	822	1012	1 " 4.33
40 " 50 "	339	1636	1975	1 " 4.82
50 " 60 "	488	1620	2108	1 " 3.32
60 " 70 "	598	1469	2067	1 " 2.46
70 " 80 "	398	917	1315	1 " 2.30
80 " 90 "	62	273	335	1 " 4.40
90 " 100 "	4	22	26	1 " 5.50
All ages.	2163	6955	9118	1 to 3.215

From this table we learn the proportional numbers of individuals dying from cancer at each specified period of life; but, as previously intimated, we are by no means warranted in concluding that these numbers represent the *relative tendency* to the disease at different ages. For instance, it appears from the table, that 1620 females died from cancer between the ages of 50 and 60, while only 917 perished between those of 70 and 80; but, if the number of females *living* of the former age were somewhat more than *double* that of those alive of the latter age, the *true* proportional mortality at both decimal periods of life would have been nearly *equal*. We shall see presently that the *real*

* *Vide* paper by the author, entitled "Statistical Researches on Cancer." Southern Med. and Surg. Journal. New Series, Vol. 2, p.p. 257–293, May 1846. An *abstract* of the conclusions deduced may be found in Am. Journal of Med. Sci., N. S., Vol. 13, p. 254, Jan. 1847.

mortality is decidedly *greater* between 70 and 80 than between 50 and 60, notwithstanding the great preponderance of the *absolute* number of deaths at the latter period of life.

As Table 1 contains the mortuary registers of 11 years, it will be more convenient for our purposes to compute from it the *mean annual deaths* at each period of life. Of course this is obtained by dividing the number dying at each age, as given in Table 1, by the number *eleven*. We thus compute the following table:

TABLE 2.

Age.	Males.	Females.	Both Sexes.	Ratio of Males to Females.
1 to 10 years	0 818	1.273	2.091	1 to 1.55
10 " 20 "	1.182	1.182	2.364	1 " 1.00
20 " 30 "	5.636	15.364	21.000	1 " 2.73
30 " 40 "	17.273	74.727	92.000	1 " 4.33
40 " 50 "	30.818	148.727	179.545	1 " 4.82
50 " 60 "	44.364	147.273	191.637	1 " 3.32
60 " 70 "	54.364	133.545	187.909	1 " 2.46
70 " 80 "	36.182	83.364	119.546	1 " 2.30
80 " 90 "	5.636	24.818	30.454	1 " 4.40
90 " 100 "	0.364	2.000	2.364	1 " 5.50
All ages.	196.636	632.273	828.909	1 to 3.215

To ascertain with accuracy whether particular ages exercise any influence on the development of the disease, we must compare the absolute mortality at each age with the total number *living* at those ages. As the mortuary records extend through a period of 11 years, we are not warranted in assuming that the population was *stationary* during this time; but we may assume, without sensible error, that the population of the Department, according to enumeration of 1836, is a fair estimate of the *average* number living during the 11 years from 1830 to 1840, inclusive. Now, the population of the Department of the Seine (embracing Paris and the arrondissements of Sceaux and St. Denis,) was, in 1836, 1,106,891. Assuming the proportional numbers of the sexes to be the same as they were in England about this period, and we have 540,738 males, and 566,153 females. Again—assuming the number of persons of each sex living at each age in France, to be in the same proportion as in England in 1841, and we are furnished with the data required for computing the results embraced in the following table. The numerical elements of Table 2, were, of course used in the calculations :

TABLE 3.

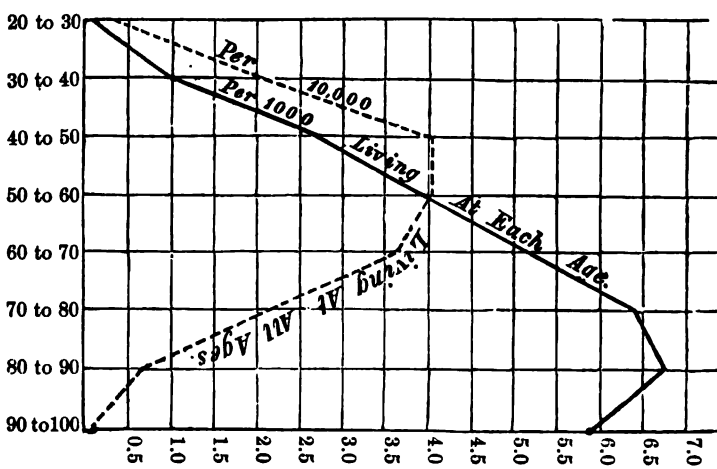
Estimated Number Living.				Annual Deaths from Cancer in 1,000 living			Ratio of Males
Age.	Males.	Females.	Both Sexes.	Males.	Females.	Both Sexes.	to Females.
Under 10.	139186	139840	279026	0 00588	0 00910	0.00749	1 to 1.55
10 to 20	115556	115269	230825	0.01023	0.01026	0.01024	1 " 1.003
20 " 30	92736	104342	197078	0.06078	0.14725	0.10655	1 " 2.42
30 " 40	69485	73203	142688	0 24858	1.02081	0.64476	1 " 4.11
40 " 50	52073	54124	106197	0.59182	2.74788	1.69068	1 " 4.64
50 " 60	34607	36800	71407	1.28192	4.00198	2.68372	1 " 3.12
60 " 70	22928	25703	48631	2.37111	5.19564	3.86399	1 " 2.19
70 " 80	11085	12852	23937	3.26399	6.48659	4.99417	1 " 1.99
80 " 90	2866	3680	6546	1.96669	6.74408	4.65239	1 " 3.42
90 " 100	216	340	556	1.68110	5.88769	4.25114	1 " 3.50
All Ages.	540738	566153	1106891	0 36364	1.11679	0.74886	1 " 3.071

The foregoing table demonstrates the *inaccuracy* of the prevailing opinion, that the tendency to cancer is at its *maximum* between the ages of 35 and 50. The abrupt augmentation of *general* female mortality between the ages of 40 and 50, when taken in connection with the equally sudden diminution of the intensity of fecundity among women at the same epoch of life (as exhibited in the Swedish tables) has been supposed to lend support to the validity of the current opinion, respecting the proclivity to uterine, and mammary cancer during the declining activity and cessation of the reproductive functions. But Table 3 shows, on the contrary, that, in both sexes, the mortality from cancer goes on steadily, augmenting with each succeeding decade until the 80th year, and among females, until the 90th; after that period, the number of cases is probably too small to furnish any reliable comparison. No *sudden and abrupt* alteration of the law of mortality from cancer in the sexes, is here exhibited at that critical period of life. In fact, the greatest *increase* of deaths among females takes place between 20 and 30, when the intensity of fecundity is probably at its *maximum*. Indeed, after 25 or 30 years of age, the rate of increase with advancing life, is *remarkably uniform* among *females* up to 80; the *average* of these five decimal periods being about 1.30 per 1,000 living, for *each decade*. Among *males* the increase is *not so regular;* arising, probably, from the *smaller numbers* embraced in our statistical data. Restricting our attention for the present, to the law of mortality among *females*, the numbers contained in the following table will illustrate several points:

TABLE 4.

Age.	Annual Deaths from Cancer in 1000 Females living at *Each Age.*	Annual Deaths from Cancer in 1000 Females living at *All Ages.*
20 to 30	0.14725	0.04196
30 " 40	1.02081	0.20409
40 " 50	2.74788	0.40619
50 " 60	4.00198	0.40221
60 " 70	5.19564	0.36472
70 " 80	6.48659	0.22767
80 " 90	6.74408	0.06778
90 " 100	5.88769	0.00546

A glance at the numbers in the last two columns of the preceding table, illustrates the fallacy of estimating the *relative tendency* to cancer at different ages by the ratio which the annual deaths from it at each age bears to the *total* population living, instead of the number living at *each age.* These facts can be expressed *graphically,* according to the method of analytical geometry, as represented in the following *diagram;* in which, in order to *enlarge* the scale, the numbers in last column of Table 4, *are multiplied by ten.*



The fact likely to be most strongly impressed on the reader by this diagram is, the *remarkable regularity* of increase in mortality from cancer with advancing life among females after the age of 25 or 30 years ; provided, *it is estimated in relation to the number of females living at each age:* the only *correct* method of estimating it. After 75 or 80 years of age, the law appears to be disturbed by irregularities ; but this probably arises from the fact that the number of cases after this epoch is too *small* to admit of useful com-

parison. It will be observed, that the mortality between the ages of 30 and 80, or rather 25 and 75, *increases nearly in arithmetical progression as the age advances in arithmetical progression.* Assuming this to be the *Law of Mortality from cancer* among females, it admits of very *simple mathematical expression.* Thus, let

a = the age at which *liability* to cancer *begins;*

A = any age, *greater* than a;

c = a *constant co-efficient,* probably *variable* according to *country,* state of *civilization,* etc.:

Then, we shall have,

Mortality per 1000 living at age, $A = c\ (A - a)$.

Let us apply this formula to our statistical data in relation to the Department of the Seine. Since the mortality among females increases in arithmetical progression, the mortality *between* 20 and 30 is equal to the mortality *at* 25; the mortality *between* 30 and 40 = mortality *at* 35; and so on up to 75. And assuming the *liability to cancer* to begin at 25 years, (that is a = 25), the numbers in Tables 3 and 4 enable us to find an *empirical formula* which expresses with tolerable accuracy the annual mortality from cancer in the Department of the Seine, at any age between 25 and 75, among females. In this case, the value of the co-efficient c, is 0.13; and we have, annual mortality per 1000 living at any age $A = 0.13\ (A - 25)$.

The accordance of the results given by this formula with the table, is exhibited in the following numerical comparison:

Ages.	Annual Deaths from Cancer in 1000 Females living at each age. By Table 4.	Annual Deaths from Cancer in 1000 Females living at each age. By Formula.
25	0.14	0.00
35	1.02	1.30
45	2.74	2.60
55	4.00	3.90
65	5.20	5.20
75	6.49	6.50

It will be seen hereafter, that the mortality from cancer in England and Wales, is only about *one-fourth* as great as it is in the Department of the Seine; so that, in *this case* the value of $c = 0.032$, and we have, mortality per 1000 living at age $A = 0.032\ (A - 25)$.

This formula represents the law of increasing mortality with advancing age in the *simplest* form, as a *function of the age.* This extreme simplicity is probably *unique* in the case

of cancer, and seems to indicate, that *age* is so far the *controlling element* in the development of this disease, as to *overpower* all other causes. In the case of *other* diseases, we cannot expect to escape the necessity of employing those *exponential functions* in investigating their laws of mortality, which are essential when a multiplicity of causes are in operation.

2. SEX. The *relative frequency* of cancer in the two sexes may be learned from Mr. Wm. Farr's valuable reports on the causes of death throughout England and Wales, as likewise from the statistical data furnished by the researches of M. Tanchou at Paris. As there exists a certain degree of numerical superiority on the side of the female population. In order to make the comparison fair, it is necessary to calculate the rate of mortality in relation to the numbers living of *each sex*. This has been done in the annexed table:

TABLE 5.

Estimated Number Living.				An'al D'ths from Can'r.		An'al Deaths from Cancer in 1,000 Living.		
Country.	Year.	Males.	Femal's	Mal's	Fe'l's	Males.	Feml's	Ratio.
Eng. and Wales	1838	7469450	7829451	620	1828	0.0830	0.2335	1 to 2.813
" " "	1839	7572873	7932874	660	2031	0.0871	0.2560	1 to 2.938
Dept. of Seine.	1830–40	540738	566153	197	632	0.3636	1 1168	1 to 3.071
Average.....	.....	.....	.....	....	.....	.....	.....	1 to 2.941

This table shows that, in both England and France, the annual mortality from cancer among females, *exceeds* that among males, nearly in the proportion of three to one. This striking difference in the liability to cancer in the two sexes, is the more remarkable from the fact, that the average annual mortality of the English population in the five years, 1838–42, from all diseases, is 22.94 per 1,000 living among males, while it is only 21.24 per 1,000 among females. It is true, the *expectation of life* among women exceeds that of men by about two years; and consequently, a greater proportional number of the former live to an *advanced age*, the period of life which, as we have seen, is most obnoxious to cancer. But this is wholly insufficient to account for the vast disparity in the mortality from this disease in the two sexes. For, by inspecting the last column of Table 3—where the ratio is deduced from the proportional mortality of each sex at *different ages*—it will be seen, that the excess is maintained by the females throughout life, even long after the reproductive functions have become dormant.

And it is a still more remarkable fact, that this *ratio* appears to be sensibly the *same* in England and France. Although, in the Department of the Seine, in each of the sexes, the mortality from cancer is more than *four times* as great as it is in England; yet, the *constancy of the ratio* between the two sexes is not disturbed. These facts indicate a *law* in relation to the influence of *sex* on the development of cancer, which is as *fixed* and *uniform* in its operation as that of *age;* and seem to point to certain *original* and *fundamental physiological differences in the sexes*, as the *true cause* of the excess of deaths from this disease among females.

3. Secular Variation. Whether the frequency of cancerous disease is on the *increase* is a question of considerable interest; but one to which a satisfactory reply cannot be furnished, until we have the means of ascertaining the proportion of the population annually cut off by the disease during *a series of years*. A little reflection will show, that a numerical comparison between the number of deaths from any given cause and the total mortality from all causes, is *not* an accurate test of the relative frequency of the specified disease at several successive epochs. For, not only is the population a variable element, but the general mortality, as compared with the living, varies with the increase or decrease of epidemic diseases. The *true test* consists in calculating the ratio of the whole number of deaths from cancer for each year, to the total population living at the *same time*. To accomplish this for a series of years, it is necessary to know the *rate of increase* of the population in which the mortuary records are kept. The enumerations of 1826 and 1836 furnish the necessary data for estimating the population of the Department of the Seine for successive years; and those of 1831 and 1841 offered similar data for England and Wales. With aid of these hints, the mode of calculating the following table will be apparent to the reader. The numbers indicating the absolute deaths from cancer in each year, were obtained from the memoir of Tanchou, and from the Reports of the Registrar-General. The first three proportional numbers for London were taken from McCulloch's "Statistical Account of the British Empire," vol. 2, p. 577, 2d Ed.: London, 1839. They are, however, of little value in relation to the point under consideration:

TABLE 6.

	Years.	Estimated Populat'n.	Deaths from all Causes.	Deaths from Cancer.	Deaths from Cancer in 1000 Deaths.	Deaths from Cancer in 1000 Living.
London.....	1728–57	.....	.....	.....	2.00	.....
"	1771–80	.....	.....	.....	3.40	.....
"	1831–35	.....	.....	.....	4.40	.....
"	1837	.....	.....	.....	.....	0 2060
"	1840–41	.....	80321	638	7.95	.....
Paris	1830–40	.....	.....	727	.....	0.8014
Sceaux and St. Denis.	1830–40	.....	.....	102	.....	0.5407
Dept. of Seine.....	1830	1049793	.....	668	.....	0.6363
" " "	1831	1059100	.....	865	.....	0.8167
" " "	1832	1068491	.....	814	.....	0.7618
" " "	1833	1077964	.....	814	.....	0.7551
" " "	1834	1087521	.....	857	.....	0.7880
" " "	1835	1097164	.....	906	.....	0.8258
" " "	1836	1106891	.....	837	.....	0.7562
" " "	1837	1116705	.....	778	.....	0.6967
" " "	1838	1126606	.....	803	.....	0.7128
" " "	1839	1136594	.....	887	.....	0.7804
" " "	1840	1146672	.....	889	.....	0.7753
" " "	Mean.	.....	34805	829	23.82	0.7550
England and Wales,	1838	15307065	330559	2448	7.4056	0.1599
" " "	1839	15511264	330497	2691	8.1423	0.1735
" " "	1840	15718183	351757	2786	7.9202	0.1772
" " "	1841	15927867	336664	2746	8 1565	0.1724
" " "	1842	16140344	342774	2941	8.5800	0.1822
" " "	Mean.	.....	.....	2722	8.0409	0.1731

A comparison of the last two columns of that portion of Table 6 relating to England and Wales, clearly illustrates the fallacy of estimating the relative frequency of cancer by the ratio which the annual deaths from it, bears to the total yearly mortality. For instance, the proportion of deaths from cancer in 1,000 deaths is, in 1840, considerably *below* that of 1839; whereas, the ratio per 1,000 living, is *above* it. On the other hand, in 1841, the ratio of deaths from cancer to the general mortality for that year, shows a considerable *increase* in frequency over 1840, whereas, the proportion deduced from the number living at that time, indicates a relative *decrease* of deaths from that disease. In fact, it is evident that the total annual mortality—principally from the influence of *epidemics*—is more liable to *fluctuations* than the mortality from cancer; and hence, the ratios deduced from a comparison of the two, would show a corresponding and

proportionate oscillation, wholly independent of any variation in the *real* mortality from cancer.

In relation to the question of *increasing frequency*, the numbers contained in the *last* column of Table 6, the only *correct test*, *seem* to indicate a *progressive augmentation* in the number of deaths per 1,000 living, both in France and in England. But where such *irregularity* prevails in the proportional numbers, little confidence could be placed in the deduction. Our statistical data are too *meagre*, and the decision of the question whether the mortality from cancer is increasing with the progress of civilization, must be postponed until some one has the leisure and the courage to discuss the vast accumulation of valuable facts which are entombed in the mortuary registers of the last 25 or 30 years. It is the opinion of M. Tanchou, that *cancer*, like *insanity*, increases in a direct ratio to the civilization of the country, and of the people.

To some extent, the augmentation of mortality may be only *apparent;* since it may arise from more careful registration, from improvements in pathology, and from greater accuracy in diagnosis. It is difficult to estimate the influence of these circumstances. It is a well-established fact, that the *mean duration* of human life has, even within a comparatively short time, been sensibly *increased*, by the rapid advancement of medical science and by a more philosophical application of hygienic and sanitary regulations. In London, according to Mr. Chadwick, the mean duration of human life increased *four years and nine months* in the 103 years from 1728 to 1830. At Geneva, Mr. Edouard Mallet estimates that the mean duration of life has augmented in 274 years (from 1560 to 1833), in the proportion of the numbers 100 to 191. Admitting the influence of *age* upon the production and development of cancer, the increase in the duration of life stands in the nature of a *vera causa* tending to augment the frequency of the disease; inasmuch as a greater proportion of the population would reach that period of existence which is peculiarly obnoxious to such affections. Under this point of view, unless science can discover means of controlling the operation of ulterior causes, the increase of mortality from this disease must, indeed, be co-extensive with the progressive advancement of human civilization.

4. France and England. A glance at the numbers contained in Tables 5 and 6 reveals a most striking and singular fact, viz.: The *enormous excess of mortality from cancer in the Department of the Seine, as compared with that in England and Wales.* It is very difficult to imagine a plausible explanation of this curious disparity. Perhaps some may be

disposed to ascribe it to a greater latitude in the application of the term *cancer* on the continent. But the English bills of mortality—at least since the Registration Act has been in operation—do not exhibit any such difference in the nomenclature of disease. Both in France and England nearly all local malignant affections are included under the name of cancer. Moreover, even if, with Mr. Farr, we include *tumors of uncertain seat* among the cancerous affections, the disparity is *not sensibly* altered. According to Table 6, the proportional mortality in France and England is as 755 to 173; and making the allowance just indicated, the ratio becomes 755 to 191. So that the mortality from cancer in the Department of the Seine is nearly *quadruple* what it is in England and Wales. Perhaps the habit of making necroscopic examinations may be more common in the French metropolis than it is in England, and thus a greater number of *internal* cancers may be detected and registered. But it is hardly reasonable to suppose that the disparity growing out of this circumstance would amount to the enormous proportion of 4 to 1.

The exact agreement in the proportional mortality from cancer among *males* and *females* in the two countries, as exhibited in Table 5, demonstrates that whatever may be the cause of the disparity, *it operates with equal intensity upon both sexes.* We have no means of ascertaining what may be the influence of diet, habits of life, physical geography, etc., on the production of cancer. Neither is it possible to estimate what share governmental influences may have in the induction of the peculiar predisposition to such diseases. In assigning a relative value to the various causes which concur in the production of chronic maladies, physicians have almost overlooked the evils, moral and physical, which have their origin in the *endemic agency of bad government.* Doubtless, in some instances, physical influences are, in a measure, subordinate to this silent and potent agent. Its operation is slow, insidious and, perhaps, inappreciable amid the multiplicity of disturbing causes which are around; but it is constant and unrelenting, and the effect is certain and inevitable. The canker of discontent and restlessness, which corrodes the vitals of a degraded and oppressed people during a series of generations, must re-act on the physical system in a most powerful manner. So far as France is concerned, it is difficult to reconcile the operation of such a cause with the proverbial gayety and elasticity of spirits which characterize her people. Yet, it has been remarked, that many of the cases of cancer of the stomach detailed by M. Chardel, were furnished him during, or subsequent to, the "Reign of Terror."

The want of access to the rich treasures of more recent mortuary records, precludes the satisfactory discussion of several other points in relation to cancer; such as the influence of habitation, occupation, married and single state, climate, season, etc., on mortality.

In relation to *organs affected.* M. Tanchou's researches, show that the uterus is most liable to cancer, constituting about 32.8 per cent. of the total deaths from the disease. The stomach comes next, 25.2 per cent.; then the mamma, 21.7 per cent.; and then the liver, 6.3 per cent., etc. Among *females,* the mortality from cancer uteri, is about 43 per cent. of the total deaths from the disease in that sex, and the mamma 28.4 per cent. These proportions relate to the mortality from cancer in the Department of the Seine, in France. It would be interesting to secure similar statistical data in relation to England, so as to trace, if possible, the cause of the disparity of mortality from cancer in the two countries.

In conclusion, it is proper to remark, that the science of vital statistics is in its infancy. This is the period for collecting facts, for multiplying observations, for establishing the basis for wider and higher generalizations. The condition of man in almost every region of the globe is changed, and we have only to look around us in the narrowest circle of the community to behold elements and principles in action, of whose existence a few years ago we had no conception. There are impulses on an immense scale impelling population forward; artificial wants of a new kind continually creating, and the basis of the social system is widening and spreading into innumerable forms on all sides. The "great constants," to adopt an idea of the late Mr. Babbage, which mark these important changes, it is the business of statistical science to collect. Governments, perhaps, for other reasons than those of a purely scientific nature, have become interested in the matter. The *census* is more carefully taken; *registrations* of births and deaths are more accurately noted. The medical philosopher is now furnished with better and more reliable data as the basis of his investigations. The census returns enable him to make population estimates for *every period of life,* and there is no reason why this *more accurate basis* should not be employed in discussing the relative mortality from different diseases. The problems presented are of the most complicated character, and all the resources of science are required to enable us to lay an effectual grasp upon them. We can scarcely expect the science of *living* matter to be less difficult, less complex, less in need of the resources of observation, experiment and calculation, than the science of *dead* matter—than astronomy, physics or chemistry.

MONTHLY REPORT OF DEATHS IN THE CITY OF SAN FRAN-

By C. M. BATES, M.D., Health Officer. *No. of Deaths corresponding*

CAUSE OF DEATH.	Total	AGES.																SEX.	
		Under 1 year	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	Over 100	Unknown	Male	Female
I. ZYMOTIC.																			
Scarlatina	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Croup	5	1	1	2	1	..	..	..	..	..	..	..	..	..	..	..	..	3	2
Croup (Pseudo Membranus)	4	..	1	2	1	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Fever, Enteric or Typhoid	8	..	2	..	..	1	1	..	1	1	1	..	1	..	..	..	..	6	2
Fever Intermittent	3	..	..	..	1	..	..	1	1	..	..	..	..	..	..	..	..	3	..
Erysipelas	3	1	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	2	1
Cerebro-spinal Meningitis	3	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	3
Other diseases of this class	4	1	..	1	..	1	..	..	1	..	..	..	..	..	..	..	..	3	1
II. CONSTITUTIONAL.																			
Cancer of Uterus	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	...	1
Cancer of Breast	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	...	1
Cancer of Stomach	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..
Other diseases of this class	2	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	...	2
III. TUBERCULAR.																			
Phthisis Pulmonalis	43	..	2	..	..	1	1	9	18	7	5	..	..	..	..	..	..	29	14
Hydrocephalus	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
IV. NERVOUS SYSTEM.																			
Meningitis	10	3	3	1	2	1	..	..	..	..	..	..	..	..	..	..	..	5	5
Cerebritis	4	..	1	2	..	..	..	1	..	..	..	..	..	..	..	..	..	3	1
Effusion on Brain	3	..	..	1	..	..	..	..	..	..	2	..	..	..	..	..	..	2	1
Apoplexy	3	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..	..	3	..
Paralysis—general	4	..	..	..	..	..	..	..	..	1	1	2	..	..	..	..	..	2	2
Other diseases of this class	13	6	..	..	..	..	..	3	1	..	3	..	..	..	..	..	..	10	3
V. CIRCULATORY SYSTEM.																			
Pericarditis	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..
Aneurism	2	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	2	..
Hypertrophy of the Heart	2	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	2	..
Valvular Disease of Heart	4	..	..	..	..	..	..	1	2	1	..	..	..	..	..	..	..	3	1
Dropsy	4	..	1	..	..	..	..	..	..	1	1	1	..	..	..	..	..	3	1
Heart Disease, undefined	4	..	..	..	..	..	..	1	..	2	..	..	1	..	..	..	..	3	1
Other diseases of this class	4	1	..	..	..	..	..	1	1	..	..	1	..	..	..	..	..	3	1
VI. RESPIRATORY SYSTEM.																			
Laryngitis	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	...	1
Pleurisy	2	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	2	..
Congestion of the Lungs	6	2	..	..	..	..	..	..	..	3	..	..	1	..	..	..	..	5	1
Pneumonia	18	9	2	1	..	..	..	2	2	2	..	..	..	..	..	..	..	9	9
Asthma	3	..	..	..	..	..	..	..	1	..	..	2	..	..	..	..	..	2	1
Hæmoptysis	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	...	1
VII. DIGESTIVE SYSTEM.																			
Gastritis	3	..	..	..	..	..	..	..	1	1	..	..	1	..	..	..	..	2	1
Enteritis	6	3	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	2	4
Peritonitis	6	1	..	..	..	..	..	1	1	2	..	..	..	1	..	..	..	2	4
Hepatitis	4	..	..	..	..	..	..	1	2	..	..	1	..	..	..	..	..	4	..
Jaundice	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..
Constipation of Bowles	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	.
Other diseases of this class	4	..	..	..	..	..	1	2	..	1	..	..	..	..	..	..	..	2	2
VIII. URINARY SYSTEM.																			
Bright's Disease	2	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	2	..
IX. OLD AGE	2	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	2	..
X. NUTRITION.																			
Atrophy	4	3	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	3	1
Inanition	7	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	3
Alcoholism	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..
Debility	9	2	..	..	..	..	..	..	..	1	2	2	.	2	..	..	..	5	4
XI. ACCIDENTAL	4	..	1	..	..	..	..	..	2	1	..	..	..	..	..	..	..	3	1
XII. PREMATURE BIRTH	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Murder and Manslaughter	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..
XIII. SUICIDE	5	..	..	..	..	..	..	..	1	3	..	1	..	..	..	..	..	5	..
XIV. SYPHILIS	3	..	..	..	..	..	..	..	2	..	1	..	..	..	..	..	..	2	1
XV. CAUSES NOT SPECIFIED OR ILL DEFINED	7	2	..	..	..	..	..	1	2	2	..	..	..	..	..	..	..	4	3
TOTALS	243	48	17	11	7	4	4	26	45	35	24	14	4	3	1	..	..	158	85
XVI. STILL BORN	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	18	15
XVII. BIRTHS REPORTED	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15	25

CISCO, CALIFORNIA, FOR THE MONTH OF FEBRUARY, 1872.

Month of 1866, 199; 1867, 201; 1868, 209; 1869, 267; 1870, 254; 1871, 245.

RACE.			WARD.														Public Institutions	Casualties	Suicides	NATIVITIES.			
Caucasian	Mongolian	African	1st Ward	2d Ward	3d Ward	4th Ward	5th Ward	6th Ward	7th Ward	8th Ward	9th Ward	10th Ward	11th Ward	12th Ward						F'r'gnCo'ntr's	Atlantic U. S.	Pacific U. S.	Unascertained
2				1						1												2	
5			1					1				2		1								5	
4									1		1		2									4	
8				1								2		2	3					3	2	3	
1	2					2							1							2		1	
3							1			1					1					1	1	1	
3										1		1		1								3	
4												1	1	1	1					1	1	2	
1										1											1		
1															1					1			
1											1									1			
2										1			1							2			
33	10		1	2	1	7	2	2	2	1	2	7	3	2	11					30	10	2	1
2												1		1								2	
10								1	1	1	1	2	3	1							1	9	
4				1						1		1		1							1	3	
3										1	1			1						1	1	1	
3			1												2					3			
4										1			1		2					2	2		
12	1			1		1		1	1	1	1	3	1		4					4	2	6	1
1												1								1			
2						1					1									2			
2													1		1					1	1		
4						1			1	1					1					3	1		
3		1		1						1	1	1								1	2	1	
2	1	1		1				1		1					1					3	1		
3	1					2								2						2	1	1	
1												1										1	
2										1					1					1		1	
6			2							1		1	1							3	1	2	
17	1			1	1	3			1	1	2	4	3	1	1					5	1	12	
3			1	1											1					3			
	1			1																		1	
3					1							1	1							2			1
6			1	1					1		1			1	1					2		4	
6				1						1		2			2					4	1	1	
4									1			1			2					4			
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7	2			2		1		2		1		1	2							6	1	2	
4																		4		2		1	1
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	1														1					1			
3	2																		5	4	1		
	3			1		2														3			
2	5					4		2							1					5		2	
210	31	2	7	18	3	25	3	10	11	20	14	36	22	17	48	4	5			117	36	86	4
33																							
40																							

REMARKS.—The aggregate mortality for the month of February shows an increase of 20 over the month of January of this year; but the caption of the table will show a slight diminution from the corresponding months of February for the past six years. When we take into consideration the relative increase of our population, it speaks remarkably well for the sanitary condition of our city. We have had a less number of deaths in the class of zymotic diseases than for last month; also a falling off of 8 in tubercular diseases, and a slight diminution in the respiratory class as compared with the last month, but we regret having to call attention to the fearful increase in deaths of children under one year of age. Last month we had 28 deaths under this head, while for this month we have 48—an increase of 20 over February. The greatest number of deaths, from any one cause, among these children, was 9 from pneumonia, while only one died from that cause in January. The next highest stated cause is 7 from inanition (and by this name we are generally left to infer that the physician does not know the cause of the child's death, and uses this name in the absence of a better one), while last month only 5 died from this cause. The next highest attributed cause, is convulsions infantile, 5, while last month there were 8, or a diminution of 3 in favor of January. Of meningitis, enteritis, and atrophy, there were 3 deaths each, and the remainder died from various causes. An increase will also be observed of deaths of those from one to two years of age during February. The month of January had 56 deaths of Californians, and the month of February shows 86—an increase of 36 over last month. In January 40 natives of Ireland died, and in February only 34. There were 33 stillbirths against 13 for the months of January, while we had only 40 births reported for February against 75 for January. It is to be very much regretted that we cannot induce our medical men and midwives to make a full return of all births occurring in their practice. If parents would stop for a moment to think of the importance of having the births of their children properly registered, they would not hesitate one moment in having it done. Many legacies must remain unclaimed for want of this little act of forethought on the part of parents.

A Step in the Right Direction.—At a meeting of the Alameda County Medical Association, held on December 4th last, Dr. Van Wyck moved the appointment of a committee to draft an Act which would effectually prevent the crime of criminal abortion, instead of having dead-letter laws, as at present. The committee appointed was composed of Drs. Van Wyck, Carr and Kittredge. The result of their labors is seen in the following:

"Assembly Bill, No. 348. Introduced by Mr. Pardee, February 10th, 1872.

"An Act amendatory of an Act entitled 'An Act concerning crimes and punishments.'

"*The People of the State of California, represented in Senate and Assembly, do enact as follows:*

"SECTION 1. Section forty-five of the Act concerning crimes and punishments, is hereby amended to read as follows:

"Section Forty-five. Every person who shall administer or cause to be administered or taken, or shall take any medicinal substance, or shall use or cause to be used any instrument whatever with the intention to procure abortion or miscarriage of any woman then being with child, and any woman who shall use or cause to be used upon herself, or consent to the use of such instrument or instruments upon herself, with the intent to procure abortion or miscarriage, and shall be thereof duly convicted, shall be punished by imprisonment in the State Prison for a period of not less than five (5) nor more than (10) years, except in the case of the death of the woman produced by an abortion or miscarriage effected by any other party, shall, on being duly convicted, suffer imprisonment in the State Prison for a term of not less than eighteen years; *provided*, that no physician shall be affected by this law who in the discharge of his professional duties deems it necessary to produce abortion or miscarriage; *provided*, his opinion be corroborated by one or more physicians in good standing; and unless so corroborated he shall on conviction of procuring such abortion or miscarriage, be imprisoned as other parties for the like offense, unless it is impossible for the physician to have such corroboration of the necessity of the act when it was deemed necessary in order to save life, nor shall such physician or surgeon be arrested, indicted, or put on trial, or convicted by the testimony of such woman alone. Any person or persons who shall in any manner advertise any drug

or drugs, or any medicinal compound whatsoever, or anything for the relief or cure of so-called monthly obstruction, which shall or may in any degree tend to produce abortion or miscarriage, shall on conviction thereof be fined in a sum of not less than two thousand ($2,000) dollars nor more than five thousand ($5,000) dollars, and suffer imprisonment in the State Prison for a period of three years; and every publisher or proprietor of any newspaper, pamphlet, handbill or card, or circular, and every person circulating such advertisement, in any form, shall on conviction be fined in the same sum and suffer the same penalty attaching to the owner or advertiser of the above named articles. Any and every druggist or apothecary, or any person who shall sell or give to any person whatsoever any article or thing which may be taken or used for producing abortion or miscarriage, shall on conviction thereof be fined in the sum of one thousand ($1,000) dollars, and suffer imprisonment in the State Prison for a period of two years, unless the article or articles or thing sold shall have been ordered under the signature of a physician or surgeon in good standing in the community."

From the daily press we learn that this Bill has passed the Assembly without opposition, after the members had listened to the able arguments in its favor from Dr. Pardee. It will be seen that the penalties attached to the violations of the bill are in each case those which will most surely act to prevent all classes from incurring the risk: namely, imprisonment. Fines, as a rule, only punish the friends of the guilty, as they must assist in paying. The Bill also prevents the lay press from advertising "sure remedies" etc, and the apothecaries from vending them. At present it is of rare occurrence to take up a "family" paper, even among the religious press, and not have one's eyes arrested at some filthy advertisement promising immediate relief, always accompanied with the caution "that under certain circumstances ladies should not use them, as miscarriage is sure to result." We have no idea that the Bill will prevent entirely the abortion business, but it cannot but check it, and that will be a great advance towards civilization.

In the Jan. No. of the *Buffalo Medical and Surgical Journal*, we read "that the Primary Board appointed at the last annual meeting of the Erie County Medical Society, held January 9th, 1872, for the purpose of examining young men preparatory to the study of medicine, will meet for the examination of applicants on the last Wednesday of every month. All persons requiring such examination will be expected to furnish evidence of good moral character, and to show a satisfactory acquaintance with the following subjects: The rules and construction of the English language, English literature, Geography, History (Ancient and Modern), with Arithmetic, Algebra to Quadratics, Elementary Geometry, Moral Science, with Elementary Chemistry and Natural Philosophy; or to show a diploma from some recognized literary college." (How many practitioners of the present day can pass that examination even in the construction of their own language?—EDS).

This action was taken before that of the State Society, elsewhere referred to, and shows the right spirit. The only other Society from which we have heard on this subject is the one in Alameda Co., in this State, which, on February 5th, adopted a By-Law making the Board of Censors the examiners in like cases.

On the same subject, we learn from another exchange, that a bill is before the N. Y. Legislature, which provides that the several County Medical Societies in that State, at their next annual meetings, shall elect by ballot, five competent Censors from each body, whose duties shall be confined to the counties whence they are appointed. These Censors are to be empowered to summon all medical practitioners, whether "regular" or "irregular," for examination as to their professional qualifications, and it is declared to be a misdemeanor to practice medicine without having received the approval of the Censors, in the form either of license or diploma. The penalty for this misdemeanor is imprisonment for not less than one month, nor more than one year, or a fine of $500.

What a glorious statute that would be for this State!

We see no hope however the passing of any such bill here for several years, on account of the want of jail and prison accomodations for the innumerable "Dr's" sure to be convicted transgressors of such a righteous *sanitary law!*

National Association.—We have received from Dr. W. B. Atkinson, the permanent Secretary of the *American Medical Association*, a circular, calling attention to the fact that the 23d annual session of the Association, will be held in Philadelphia, May 7th, 1872, at 11 A.M. We quote from the circular:

"Physicians desiring to present papers before the Association, should observe the following rule:

"Papers appropriate to the several sections, in order to secure consideration and action, must be sent to the Secretary of the appropriate section, at least one month before the meeting which is to act upon them. It shall be the duty of the Secretary to whom such papers are sent, to examine them with care, and, with the advice of the Chairman of his Section, to determine the time and order of their presentation, and give due notice of the same."

OFFICERS OF SECTIONS.

Chemistry and Materia Medica.—Drs. R. E. Rogers, Philadelphia, Pa., Chairman; Ephraim Cutter, Boston, Mass., Secretary.

Practice of Medicine and Obstetics.—Drs. D. A. O'Donnell, Baltimore, Md., Chairman; Benjamin F. Dawson, New York, N. Y., Secretary.

Surgery and Anatomy.—Dr. John T. Hodgen, St. Louis, Mo., Chairman; W. F. Peck, Davenport, Iowa, Secretary.

Medical Jurisprudence, Hygiene and Physiology.—Drs. S. C. Busey, Washington, D.C., Chairman; E. L. Howard, Baltimore, Md., Secretary.

Psychology.—Dr. Isaac Ray, Philadelphia, Pa., Chairman; John Curwen, Harrisburg, Pa., Secretary.

Secretaries of all medical organizations are requested to forward lists of their Delegates, as soon as elected, to the permanent Secretary.

W. B. ATKINSON, M.D., 1400 Pine street, S.W. corner Broad, Philadelphia.

From this coast, reports are expected from the Committees, "*On National Health Council*," Dr. Thomas M. Logan, Chairman; and on "*Climatology and Epidemics of California*," Dr. F. W. Hatch, Chairman. *Oregon*, Dr. E. R. Fiske, Chairman.

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THE PRINCIPAL PERIODS OF THE OPERATION FOR CATARACT.

Photographed. See page 217.

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THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR APRIL, 1872.

Surgery.

Art. 1.—"*San Rafael Clinic.*"

Case 1. An infant, *aet.* 10 months, was brought into the office, covered with dust, having just arrived from a journey of 25 miles. It was in the last stages of suffocation, lips livid, and with a short, noisy, ineffectual inspiration. Its mother informed me that some three hours before, while playing, it had gotten a chip into its windpipe. She had given it a tablespoonful of the Tinct. of Lobelia, which she happened to have in the house; but that the vomiting which was produced failed to dislodge the foreign body, and she had then gotten a neighbor to bring herself and child to the office, which they had reached in a little over two hours. While she was informing me of these facts, I had made a hasty examination of the glottis with my finger, and the general condition of the child leading me to believe that unless more air was allowed to enter the lungs it must die of suffocation, I collected the necessary instruments for opening the trachea; but, on asking the mother to hold the child, I found her without the necessary nerve. The services of the first man met were secured, the child placed in his lap and, without other assistance, the trachea was opened by making an incision two and a half inches long in the mediau line, extending from the lower border of the larynx to the upper border of the sternum. Dissecting through the adipose tissue with the handle of the knife and the finger, the deep fascia was reached, incised with the

knife the sterno-hyoid muscles, separated with its handle and the trachea reached at a depth of over two inches. The inferior thyroid veins wounded, poured out owing to their congested state, a considerable amount of blood; but, as there was no time to check this hemorrhage, I dilated the wound with my fingers, cleared it rapidly of blood and, with much trouble, incised the small trachea for a distance of three fourths of an inch. A deep inspiration was followed by a rush of blood into the trachea, and this by a cessation of breathing in the infant. I quickly inserted the tube, closed the wound with my fingers, and, tilting the body of the child, so that the head was dependent and the wound looked downwards, I applied my mouth to the tube, and succeeded in freeing the lungs, to a great extent, from blood. When the child ceased breathing, the man holding her, lost nerve and desired to put the infant down; from doing which he was only prevented by very emphatic language. A little brandy given by the mouth, and a few whiffs of ammonia aided by artificial respiration for some few minutes, restored its breathing. A pin was passed deeply through the lips of the wound, both above and below the tube, and a figure of eight made on either pin, which effectually prevented the entrance of blood into the trachea. I now had the child taken to a hotel and put to bed, with the direction that it should be fed with a few drops of brandy and a little beef tea. I learned from the mother that the infant, though ten months old, had cut no teeth and, on examining the gums, found that the two central incisors of the lower jaw were the only ones that had the appearance of coming through soon. During the night the child slept well, breathing entirely through the tube; its respiration being full. Occasionally the inner tube had to be removed, cleared and reinserted, and from time to time a drop or two of water was allowed to enter the trachea.

At noon the next day, with the assistance of Dr. Taliaferro, I removed the tube, inserted an eye speculum, which held the wound well open, and with a tenaculum fixed the trachea. The child breathed well without the tube. Next the glottis was examined, and a foreign body was discovered in it behind the tongue, which I tried to remove by a pair of curved forceps; but failing, next tried to introduce them through the wound into the trachea, but it was too small. I then endeavored to introduce a No. 2 flexible catheter, and succeeded in passing it through the glottis, but not in dislodging the foreign body. I now fastened a small sponge on a fine wire, and passed this into the catheter, thinking that by removing the end of the catheter after it had passed

the glottis, I could draw the sponge through and thus, in all probability, push the obstruction forward into the throat. Happily, on the second introduction of the catheter, I encountered the foreign body, and succeeded in pushing it into the pharynx and, with the finger, in removing it through the mouth. It proved to be a chip of oak, $\frac{1}{2} \times \frac{3}{4}$ of an inch in size. The tube was readjusted, the wound closed as before, and the child put to bed. An apparatus was arranged so that a steady stream of vapor was thrown against a shawl hung around the sides of the bed. The air drawn through the tube was thus kept moist. The child was ordered to be fed on beef tea and milk, and a little flaxseed tea to be given occasionally. On closing the tube it breathed through the mouth, but with considerable apparent discomfort. The pulse, in the afternoon, became frequent and hard; the child rested well, breathing wholly through the tube. The bowels had operated a number of times, which I then attributed to the Lobelia given; but afterwards found that it had suffered for several weeks from a diarrhœa.

Everything went on well until 9 P. M., when the child became restless, threw its arms about, the mouth twitching from time to time. Being sent for and, recognizing the first stage of convulsions, put the child at once under the influence of Chloroform — she inhaling through the tube. Finding from the mother that she had suffered from diarrhœa for some weeks, and had been very restless, apparently from the swollen condition of the gum over the two central incisors, I had but small hopes that my little patient would be able to withstand the additional irritation caused by the foreign body and the two operations necessary to let in air and to effect its removal. The strength failed, and it died at midnight.

Had the child cut its teeth at the time of the accident, I think it not unlikely that it would have been saved, as there did not appear to be any undue amount of inflammation of the larynx or of the bronchial tubes.

Institutes and Practice of Medicine.

ART. II.—*Miasmatic Diseases of California.* By J. CAMPBELL SHORB, M.D., San Francisco.

(Continued from page 141.)

We have seen perhaps not more than six or eight cases of this Mountain Fever, and cannot therefore write from a very full experience; an experience which may, however, be enlarged before the conclusion of the subject of Miasmatic Diseases peculiar to California and the regions lying nearly in the same latitudes west of the Rocky Mountains.

The cases we had an opportunity of observing, all recovered ultimately; the disease yielding kindly to treatment from the outset. This is true in reference to the pyrexia alone; but some of the sequelæ were extremely difficult to manage, remaining steadily defiant to remedial measures, to an extent scarcely expected from the comparatively trivial character of the original visitation.

We have conversed with a great many intelligent men, outside of the profession, on the subject of this peculiar fever: with those who have suffered from it themselves, and with those who had opportunities of seeing a number of cases similarly affected. Though differing from them entirely in reference to the production of the malady, our own experience agrees in all essential particulars with their account in reference to its mode of invasion, symptoms, and consecutive troubles. We have never seen the disease exactly in its inception, unless the cases treated on the Umpqua river, in 1861, belonged to this order. Further on we shall have occasion to refer to these cases in connection with the theory mentioned at the conclusion of the last paper on this subject.

Outside of the profession, this fever has been regarded as the result of a disturbance of the circulation, consequent upon the removal of the atmospheric pressure. Non-professional observers, recognizing the chemical fact that the atmosphere is not of equal density in all its parts; that the

stratum lying close to the earth at the level of the sea, sustaining the whole pressure of the superincumbent atmosphere, is more dense than that more highly elevated strata, familiar with the experience of æronauts, who found, in the upper regions of the atmosphere, respiration and circulation in the rarefied air attended with singular and appalling phenomena;—naturally enough concluded, in searching for the causes of the obscure febrile visitation, that the equilibrium of the circulation maintained by the ordinary atmospheric pressure, was disturbed at a high elevation, and from this disturbance sprang their Mountain Fever.

We believe the effects incident upon a sudden withdrawal of the atmospheric pressure are more or less ephemeral in their character, disappearing rapidly as the pressure is restored; and the experience of æronauts does not show that they suffered at the conclusion of their aerial voyage any serious discomfort other than that sometimes following an exposure to sudden changes of temperature, such as catarrh, or some trivial inflammatory disorder of the bronchial mucous membrane. If the theory be correct which ascribes this fever to the removal of the atmospheric pressure, and whatever is comprehended by it, we ought reasonably to conclude that those who were seized by it would experience immediate relief by leaving the high elevations on the mountains, and taking up a residence for a short time far below, in the valley or plain. Professional men, more or less influenced by the views of their associates in reference to the origin of this malady, have suggested removal of their patients to localities where the air was not so intensely rarefied; but the experiment has never met with such success as would warrant us in believing that the improvement in the symptoms was the result of the change solely in the location, for the paroxysms continued long after the period at which all the disturbances in the system springing from the removal of the atmospheric pressure would have been set at rest.

In studying the hidden sources of a disease so closely allied to that mass of morbid phenomena ascribed to the presence and operation of paludal poison, a disease which occurs in situations so far removed from such surroundings as would naturally suggest the probable existence of malaria —a disease whose home is the mountain brow, fanned by the purest winds of heaven, uncontaminated with the poisonous vapors that brood over the surface of the earth—there is one point which appears to us to merit especial attention. It presents itself here in connection with the occurrence of this fever, and will come up again in other

connections, but the present seems the most appropriate place to consider it.

We feel confident that many take within their systems, while residing in or traveling through regions in which paludal poison is generated, the seeds of disease which never come to maturity. A larger class are seized immediately on exposure. Of this number some die, while others, by a devious path, find their way to health once more through repeated relapse and constant warfare with the numerous and serious consecutive troubles which contend for mastery over the system with such extreme pertinacity. In another class the germ of disease is planted, but its evolution depends on contingencies. It is developed when subjected to some exciting cause, or when the energies of resistance are weakened or destroyed by morbid processes, which have no association or connection with this pre-existing germ. Miasmatic disease is a very cowardly kind of distemper; as a rule, the weak are its victims. It only attacks the strong when bound hand and foot, or hunted down and weakened by some other enemy.

In the class last mentioned the violence of the miasmatic attack is measured by two circumstances—the amount of time which has passed since the period of exposure, and the character of the intercurrent trouble. Either lapse of time is able to dissipate paludal poison, or its peculiar force is spent in the destructive changes which are constantly going on in the economy under the active operation of the principle of life. We know that the ultimate structure of all organs and tissues is slowly burning up in the combustion of life; these very tissues which are intoxicated with the *materies morbi* are hourly consumed, and in the ash which finds an exit from the body through the various emunctories may be contained the harmless remains of this once powerful and treacherous poison. Digestion, which in one sense may be regarded as occupying antagonistic relations with life, is constantly pouring into the blood volumes of new and rich material from which each organ and tissue may select their appropriate nourishment, to take the place of that which life has used and then destroyed; and we may readily conceive how in this constantly recurring rejuvenescense of the organs the poison which infected the older atoms—those close on the verge of disintegration—is ultimately and entirely expelled from the body. The point in connection with the phenomenon of Mountain Fever we have to consider is, whether its occurrence cannot be attributed to the operations of paludal poison, which, up to the period at which it gave unmistakable signs of its presence, had remained latent and unrecognized in the system.

The science of medicine is silent on the subject of the length of time during which this poison may retain its faculty of impressing the economy in its peculiar way. It has not fixed or attempted to fix the time, and we scarcely believe it falls within the range of its possibilities to arrive at any nice measurement in this direction. This Mountain Fever which prevails here cannot be regarded as springing from the same conditions associated with the evolution of a form of miasmatic disease which desolates many portions of the West India Islands, and found to a considerable extent in certain localities in India, and called by the English army and navy surgeons, who were the first, we believe, to give to medical literature its name and cause, the "Hill Fever." The sources of this fever are obvious enough. Common experience teaches us, and the records of travelers furnish additional evidence of the fact, that rivers very generally arise in the hilly or mountainous parts of countries. Long continued rains, or the rapid melting of the snows where the mountains are very high, may wash into the bed of a river enormous rocks, large trees, and vast quantities of earth, which may become, when the freshet has ceased, insuperable obstacles to the onward progress of the now diminished stream. The water is thus arrested, becomes foul, undergoes decomposition, and diffuses itself into the surrounding regions, forming morasses of greater or less extent. Baked by a tropical sun, with an atmosphere above them still as that of a cavern, with no chance of renovation, these morasses speedily generate poisonous vapors surcharged with such deadly strength as to affect even the inferior animals, and the wild beasts of the country, impelled by instinct, abandon their homes and seek safety in flight. Our theory of the production of Mountain Fever, the sickly harvest of seed planted long before, and coming to maturity under conditions uncongenial with its perfect evolution, is based upon many reasonable considerations. This theory may not stand the test of time; it may be that at the present hour other observers are in possession of facts which render it untenable, and can demonstrate that in the surroundings of this fever there are found conditions sufficient to account for its presence without the necessity of referring it to the effect of antecedent poisoning. We advance our theory for what it is worth, ready to accept a better one as soon as scientific research shall have presented it to us. It must be remembered that the grand majority of our people have come to California by the Isthmus of Darien. It is by this route many come now, and will continue to come until the railroad across the continent is thoroughly established. The time occupied in making the actual transit of the Isthmus

varies from three to six hours, while the whole period during which passengers are exposed to the concentrated malaria of the place extends from fifteen to forty-eight hours. That this period is sufficient to sow the seed of miasmatic trouble is evidenced by its occurrence on the voyage from Panama to this port, and the number who fall sick shortly after their arrival in this city. We feel assured that the disease is the offspring of the tropics, for on the voyage down the Atlantic from New York the disease never occurs except in extremely isolated instances. This argument, which is *post hoc, ergo propter hoc*, would have but little force were it not supported by other facts which amount to a demonstration of the proposition. These facts will be considered when we come to that part of our treatise in which Panama Fever is described. Soon after their arrival the new comers disperse in all directions, going for business or amusement to all parts of our country. To the east of our city, as a rule, lie the vast mineral deposits which have given to California her wonderful prominence in the sisterhood of States, and there, too, are the mountain ranges, the home of the fever which we have been discussing. Towards the east, therefore, go the bulk of our traveling public. They pass in an incredibly short space of time from perfect summer into the regions of eternal frost, carrying with them, at best, insufficient protection to guard against the various troubles which are so sure to follow in the wake of such sudden and frightful changes of temperature. Miasmatic disease desires no better opportunity for an attack than the one offered here. Nature furnishes an important fraction of the paroxysm herself, the chill; which once commenced may proceed without her assistance to an indefinite extent; the fever follows, and here on the mountain's crest we see the birth of a disease which was conceived in the tropics, and born here in the mountains of California.

It may be urged as an argument against the correctness of our theory, that cases of Mountain Fever occur among those who never came to these shores by the Isthmus. Though not personally recognizant of the fact, we can readily perceive how such might happen without weakening in the least our position.

To reach California overland, from the east or south, the traveler necessarily passes through regions of country differing from each other in many respects—in height above the level of the sea, in meteorological surroundings, in physical and geological peculiarities. He passes through sections where all the conditions are present for the evolution of paludal poison—through the long, damp prairie, in the soil

of which lie the remains of the tall, coarse grass which waved over it for a thousand years; by the banks of sluggish rivers, flowing through countries more or less flat, and where seepage keeps a vast extent of territory constantly filled with water, furnishing for the greater part of the year the essentials for the production of malarious exhalations. To such sources of disease is he frequently subjected on his journey toward the west, no matter what his point of departure. Beside, exposure at night, anxiety, inexperience, and the want of proper food and protection from the inclemencies of the weather, are slowly undermining his health and strength—a process which goes on more rapidly in proportion as his journey draws near its close; and on his arrival in the mountains, which look down on the sea, his system affords an admirable theatre for the operations of miasmatic disease, and he grows sick, perhaps dies, in sight of the promised land. In one instance, the germ of the disease was planted in the tropics; in the other, in the sickly prairies of the west; but it is the same kind of fever, attended by the same phenomena, amenable to the same treatment, and accompanied with similar results.

We have now considered the sources of this Mountain Fever. It remains for us to submit a short history of its symptoms and peculiarities, reserving our remarks upon the treatment until the period arrives in which the treatment of all the miasmatic diseases of the country is described.

A person about to be attacked experiences a general malaise for several days. There is a yellow tinge, more or less marked, about the eyes, which are generally injected, and lack expression; the tongue is slightly coated; the skin is harsh and dry, and the urine pale and plentiful. There is a disposition to drowsiness, which it is almost impossible to resist, a distaste for food, a sense of discomfort about the brow and eyes, not amounting to actual pain, and a feeling of weariness throughout the body, which at this stage of the disease is the most distressing symptom. Springing from the weariness, or associated with it, appears an unnatural indifference to considerations which, under ordinary circumstances, were objects of incessant care and attention; and to this must be added a tendency to depression of spirits, which no draft may clear away, or encouragement dissipate. After the preliminary stage, generally in the night, the person is seized with a severe chill. Coincident with the occurrence of the rigor come the intense headache and the frightful pains in the bones apparently, or their periosteal investments, followed in the course of an hour, perhaps less, by the consecutive fever, which has different degrees of duration, generally terminating in three

or four hours in a very profuse sweat. Throughout the paroxysm, as a rule, the intellectual faculties are singularly undisturbed, and in the sweating stage many of the disordered mental states disappear, and the patient expresses himself in better spirits than he has been for days. In some instances, however, the intellect is suddenly eclipsed; before the rigor is over and the flush of fever comes, the patient passes into a state of stupor, more or less profund, from which at times it is impossible to arouse him. The breathing is heavy and slow, the pupil dilated and insensible, and the pulse laboring and slow.

[TO BE CONTINUED.]

ART. III.—*Intussusception.—Novel Treatment.—Success.* By ALFRED W. TALIAFERRO, M. D., of San Rafael.

The following case of invagination of the gut, occurring in the State Prison Hospital, is sent because of the novelty of the treatment adopted and the success attending it. On June 8, 1871, in making my usual visit to the prison, I found in hospital, T. S., *aet.* 24, admitted fourteen hours previously, apparently suffering from a severe cramp colic, and from which he had obtained no relief. Not doubting but that this was a simple case, I ordered the usual remedies without making a very careful examination. The next day he was still suffering intensely and vomiting; there had been no action of the bowels, although the most active medicines had been given by the mouth and as enemata; the hypodermic administration of a grain of morphine had given him a few hours of sleep and ease. A careful examination revealed a mechanical obstruction in the bowels which I diagnosed as being at the ilio-caecal valve, the intense pain being confined to that spot, and an examination per anum demonstrated that the rectum and sigmoid flexure of the colon were free. All efforts to remove this obstruction proved abortive. During the evening he commenced vomiting large quantities of fæcal matter. On the 11th, he

was in a state of collapse, and I returned to San Rafael with no hopes of finding him alive at my visit the next morning; therefore I was greatly surprised on my return to find him not only alive, but in a comfortable condition, and with free evacuations from the bowels! This favorable change was due to the treatment adopted by Wm. Lebur, my steward in the hospital. Lebur reported that as everything directed by me, had failed to relieve the patient, and in consequence of his desperate condition, he had ventured on the evening before, the experiment of inflating the intestines with the *effervescing draught*, in order that the obstruction might be overcome! This was effected by injecting into the rectum a strong solution of bicarbonate of soda, then a strong solution of tartaric acid, and preventing its egress by making rigorous pressure against the sphincter ani. The result of this experiment was the instant removal of the invagination, and free catharsis.

The principle of this treatment becomes obvious when we reflect a moment, and I wonder that it has not been in general use. Our chief aim, in this disorder, being to remove obstruction by inflation of the bowels, what method is there more potent than the one used in this instance?*

Lebur is a U. S. prisoner from Oregon, and although he had practised medicine in that State before he became a prisoner, he is by no means a "*regular*." He claims this

* Historical note by Editor. In 1726, Dean Swift wrote Gulliver's Voyage to Laputa. The description of Gulliver's visit to the Grand Academy at Lagado is graphic; among other things, he says: "I was complaining of a small fit of the colic, upon which my conductor led me into a room where a great physician resided, who was famous for curing that disease by contrary operations from the same instrument. He had a large pair of bellows, with a long slender nozzle of ivory; this he conveyed eight inches up the anus, and drawing in the wind, he affirmed he could make the guts as lank as a dried bladder. But when the disease was more stubborn and violent, he let in the nozzle while the bellows were full of wind, which he discharged into the body of the patient, then withdrew the instrument to replenish it, clapping his thumb strongly against the orifice of the fundament; and this being repeated three or four times, the adventitious wind would rush out, bringing the noxious along with it (like water put into a pump), and the patient recovered, I saw him try both experiments upon a dog, but could not discover any effect from the former. After the latter, the animal was ready to burst, and made so violent a discharge as was very offensive to me and my companion. The dog died on the spot, and we left the doctor endeavoring to recover him by the same operation."

We fear, from the last sentence, that the "great physician" was homœopathically inclined.--ED.

treatment as original; and as far as he is concerned, I believe that it did originate with him on this occasion.

On consulting various authorities, I find only in "Wood's Practice of Medicine," third edition, any account of similar treatment. It is a simple mention of a report made by Dr. Tate, in the *Georgia Southern Medical Journal*, of a successful case treated in this manner.

Lebur's reading is limited, and I must believe his assertion that his action in this case was not based on any information he had received from books or hearsay. I give *literatim* a portion of the report of this case he made me in writing, because for style, for reasoning from cause to effect, and for other little disquisitions, there is nothing in our medical literature so unique:

"At 9 oclock at night June 11th I gave the following prescription ℞

Carbonate of Soda ℥iv
Aqua Oij.
Also ℞ Tartaric Acid ʒij
Aqua ℥xviij Mix.

Signa; First inject one third of the lixivium in the rectum. then before withdrawing the Syringe grasp a sponge in the hand and press it with considerable force against the fundiment to prevent the return of the effervescing gass untill the Patient complains of pain or extreme anxiety to evacuate the bowels or rather untill the abdomen becomes considerably distendid. it will then be necessary to remove the sponge immediately. at which time there will be a profuse evacuation of the bowels: if Eructations from the Stomach or Singultus, or Cramping of the bowels Supervene the abdomen Should be immediately bandaged with very moderate force, otherwise the Counter pressure mite cause an eruption of the bowels or wholly impeed respiration by the upward pressure against the Diaphragm. in the case under consideration the patient ejected wind from the Stomach and began to hiccough and water ran from the eyes. now the question arrises whether the effervescence passed through the ilio-colic valve or not, or whether the distendid and upward pressure of the bowels against the Stomach and Diaphragm. caused the belching and hiccough or not; the Patient could not breathe untill the Sponge was removed to give vent to the Enema which was repeated three-times within half an hour. one third of the foregeing amount Specified was given at each

injection as above mentioned. Since the time the enema was given on the night of the 11th the patient has had evacuations of the bowels two or three-times a Day until recently: they are now regular once a Day. he appears very weak Pulse averageing about 100; appetite good.

(Signed) "WM LEBUR."

"To Dr. Taliaferro."

I, of course, would not suggest such heroic doses as were given here, for there is no wonder that the tears ran from this poor fellow's eyes; but would advise a trial of this plan in a more conservative way. I have had occasion since to try it with a female prisoner in a case of obstruction, supposed to be either from invagination or a twist in the intestine, but the case was not sufficiently pronounced for me to feel sure that it proceeded from either of these causes. For two days I tried the most active purgatives and enemata without any effect; remedies were also used for allaying spasm of the bowels; she suffered intense pain over the whole abdomen, but there was no vomiting. With the light of Lebur's experiment before me, I ordered the trial of the effervescing mixture, but not in such *blasting* doses. A pint of water with two drachms of soda, and the same amount of water with a drachm of the acid were alternately introduced into the rectum. In an hour there was a copious evacation from the bowels, and the woman had no further trouble.

I hope the publication of these cases may induce others to try this mode of treatment, as I feel sure it will prove more efficacious than any other that has been tried in this very fatal disorder.

The poor fellow, T. S., had slight diarrhœa for a few days, was relieved and seemed in a fair way to recover, but inflammation of the parotid gland set in, extensive suppuration ensued, and he sank from exhaustion on the 25th June. Could this condition of the glands have been accidental? It is more rational to assume that there was inflammation of the gut near its seat of trouble; that exudation of morbific matter followed as a result and, entering the circulation had acted as a blood poison on these glands. There was no other evidence of pyæmia in this case; none of the other

glands of the body were affected, and there was no redness or inflammation along the course of any of the veins.

I regret that I was absent from the county at the time of his death, as a *post-mortem* would probably have fully settled the question.

ART. IV.—*Biliary Calculi.*

DR. J. C. VAN WYCK, of Oakland, reports F. T., *aet.* 59, female—a case which he treated, at intervals, for the space of five years. Prof. N. R. Smith of Baltimore, had observed the case twenty-five years previously, at which time, although she was residing in a malarious district, she speedily recovered her usual health. Shortly before Dr. Van Wyck was called in attendance she had suffered greatly from "bilious attacks," and had become reduced from corpulency to a condition of extreme emaciation. These attacks were of irregular occurrence, varying from ten to sixty days. The general health was not very good, appetite irregular, bowels constipated and, owing to a constant dread of a return of the trouble, together with family afflictions, she became very despondent and depressed. The attacks would be instantaneous; with no previous warning she would be seized with vomiting, intense pain over the liver, and complete jaundice occurring within *half an hour* from the time of seizure. The jaundice hue differed from any previously seen, being the tint of a not fully ripe lemon, and the skin presented a shining appearance, in lieu of the usual flat, dead color of icterus. The paroxysm would last from one to two hours, with intense, uninterrupted suffering. The application of mustard to abdomen and feet, Ac. hydrocyanic to quiet stomach and morphine to allay pain, would generally control the attack and, after a mercurial purge on recovery, she would be as well as ever. During the intervals every remedy that could be suggested by different medical men called in consultation, and who all diagnosed as above, was tried, sometimes with apparent prospect of permanent relief, but all eventually failed, and the attacks now after one year, increased in frequency until for the space of three weeks, forty-eight hours rarely elapsed without a severe one, and the patient rapidly failed, when Dr.

Van Wyck determined to try the effects of strychnine, which was accordingly given in doses of $\frac{1}{60}$ of a grain every three hours. The beneficial effect was so immediate that all other medicine was discarded, and the strength supported by it and easily assimilated articles of food. In three weeks the patient left her room; the bowels acted freely; and the general improvement was so marked that the medicine was increased to $\frac{1}{10}$ grains daily.

The patient faithfully persisted in the use of strychnine for six months, increasing the quantity to $\frac{1}{6}$ grains daily when, believing herself free and cured, she abandoned its use, to be seized again in three weeks, with another familiar attack which necessitated the continuance of the remedy. Within the next two years she passed from the observation of Dr. V., but he learned that while away from home she had again left off the only remedy that had ever been of the slightest service to her, and in a paroxysm of the well known attack, had died. There was no autopsy made. The question that naturally arose in the mind of Dr. Van Wyck was, was this a case of biliary calculi, or a spasmodic action of the hepatic duct, causing a distension of all its ramifications and cutting off the flow of bile?

Long before the patient had passed from his observation, the Doctor had taken the latter view for the reason that with every attack, gall-stones had been diligently sought for and never found; and this gall bladder could not be detected on examination after these innumerable attacks, as would have been the case were it distended with calculi sufficient in quantity to account for the frequency of the seizures. Again, spasm of the duct is frequently followed by instant jaundice, as in the present instance, while Villeneuve, and other eminent authorities, teach that slow depressing passions of the mind are fruitful causes of producing spasm of the duct.

Dr. Van Wyck added that during the past three years he had visited another female, *aet.* 41, whose case he diagnosed as biliary calculi. It resembled the first one reported; in fact, the only difference being that the resultant jaundice was not observed until *several hours* after the seizure, and its hue was the *typical icteric* one. The treatment has been—hydrocyanic acid to allay nausea, morphine hypodermically, and a pill of podoph. assafœt. and nux vom. Owing to the infrequency of the attacks the constant use of the nux vom. was considered unnecessary. There had been no attack for eight months.

Dr. Thos. Buckler, of Baltimore, published an article in the *Half Yearly Abstract*, July, 1868, on this subject. He gave chloroform in teaspoonful doses every hour during the

attack, and one dose after each meal, for five subsequent days; he then used hyd. succinat. ferri per ox ℥jss, aquæ. ℥vjss. M. S. ʒj., after each meal; this was continued for three months with benefit. Three other cases submitted to the chloroform treatment were promptly relieved.

Gynecology and Diseases of Children.

ART. V.—*A case of Twins, with a Single Placenta.* By H. B. DAVISON, M.D., of San Francisco.

I was summoned on 28th February, to see Mrs. W., *aet.* 35, and on arrival, found her complaining of slight pains, simulating those of labor. She was in the fifth month of pregnancy; the waters had broken three days prior to this visit; she had felt no movements of the fœtus for several days, and believing herself in labor with a dead fœtus, she had called in assistance. On examination of the abdomen, it was found flaccid and soft, the uterus being well down in the pelvis. As there were no special indications for interference, she was left, after having quieted her fears as to the result of leaving a dead fœtus in utero. At the next visit, an examination was made with a cylindrical speculum, and the os uteri found patulous, soft, and with no discharge. On 12th March, at night, a messenger came in great haste, with the word that labor had commenced. On reaching the house, the nurse pronounced the child born. In a few minutes a slight traction on the cord not availing to remove the placenta, I made an examination, and found another fœtus, with its breech presenting. This was soon expelled, and there was considerable hemorrhage. I ordered Extr. Ergot. fl., which soon forced out a single placenta, having two cords inserted. A thorough search failed to discover any signs of a remaining placenta. On inspection, the placental mass was found well defined, of an oval form, and scarcely decomposed.

Each child was a female, the one more developed than the other, presented the appearance of incipient hydrocephalus; apparently, it must have survived the other by several days; its cord terminated in the center of the placental mass.

The smaller fœtus was the first one born; it was more decomposed, and its cord was inserted within an inch of the edge of the placenta.

The question arises, what caused the death of the product of conception in this instance? The mother declared that she had suffered no external injury, and that she was exceedingly desirous to have a child born alive.

Have twins ever been born alive, having one placenta in common?

Was the death of the smaller caused by insufficient nutrition, because of the insertion of its cord at the *edge* of the placenta?

Did the presence of the smaller decomposing, cause the death of the larger?

There was but *one chorion* and *one amnion.*

Dr. Bedford records one similar case, which is the one I have seen reported, and therefore consider it as of rare occurrence.

The mother made an excellent recovery.

ART. VI.—*Case of Extra Uterine Fœtation.* By HARVEY JEWETT, M.D., Canandaigua, N. Y.

[A paper read before the N. Y. State Medical Society, at their meeting in February, 1872.]

Extra Uterine Fœtation in many of its forms is of such rare occurrence, especially in private practice, that the following case of tubal pregnancy is deemed worthy of record. Perhaps, if in all the instances of sudden death, a more scrutinizing investigation as to the cause could be instituted, many cases that are now shrouded in mystery might reveal numerous instances of this abnormal condition.

Mrs. F., the wife of a farmer, of good constitution, had been married sixteen years without offspring. During the months of May and June, 1856, she found herself unusually indisposed, and applied to her family physician, who assured her that she was pregnant. On the eighth of August, she consulted the late Dr. E. W. Cheny, to whom I am indebted for the leading facts in the history of her case, and by whose courtesy I was permitted to examine her in the last stage of her illness and make the examination after her death.

The patient stated that in jumping from a buggy to the ground a few days previously, she was severely jarred inwardly, pointing go the right iliac region; but was not entirely disabled from her domestic duties. She was seized next morning while at the breakfast table with severe pains in the lower part of the bowels, followed by exhaustion and faintness. Dr. C. was immediately called, and found her in great pain in the uterine region, small, rapid pulse, sallow, exsanguineous countenance, and the whole expression of her face betrayed the most intense anxiety and suffering. The abdomen was considerably distended, which was supposed to be partly chargeable to retention of urine, and constipated bowels. Accordingly a catheter was introduced into the bladder, and the bowels unloaded by a cathartic, with a slight dimunition of the fullness. The pain, bloating and prostration continued, notwithstanding the most vigorous use of anodynes and stimulants, until the third day, when she sank down from exhaustion and died.

The *post-mortem* twenty-four hours after death, revealed the mystery hanging over the cause of death. The peritoneal sac was distended with bloody serum, and a large coagula was found in the pelvic cavity. On removing the fluid, a fœtus, apparently between three and four months, was found in the iliac region, having escaped from a rupture in the right fallopian tube near its centre, the placental mass was partially attached and remaining in the sac which contained the fœtus.

Cases of extra uterine pregnancy are somewhat rare in the human species, and are said never to have occurred in the lower order of animals. Ramsbotham, and many other writers, divide these abnormal cases in four species, viz.: the ovarian, tubal, abdominal and parietal. Cazeaux has subdivided these into ten varieties, which have received different names, according to the part of the passage where the ovule is arrested and develops. There is a general concurrence, however, on the part of all writers, that the tubal is by far the most common of all the forms of extra uterine fœtation. And the reasons are obvious why this should

be so, if we but look for a moment at the length and narrowness of the canal through which the fecundated ovule makes its transit from the ovarian bodies to the uterine cavity. This arrest and development may take place at any point along this canal wherever it meets with any obstruction, and where it forms adhesions to the inner surface of the tube itself. Under such circumstances, the fibres of the fallopian tube become the enveloping structure of the embryo-fœtus which, by its continued growth, distends enormously this structure until it culminates in a rupture of its walls, ordinarily between the third and fourth months. Instances occur in which the impregnated ovule is not detached from its bed, and the ovarian structure is converted into a sac for the newly organized being. In this case, which is denominated ovarian pregnancy, the structures are better adapted to development and distension, and the work may go on even to the full period of gestation, and the patient unconscious of her true condition and her imminent peril. The structures of the walls of the cyst, therefore, differ according to the place where the fecundated ovule finds a lodgment. In the tubal variety, they consist of the walls of the tube itself, and in the ovarian of the integuments of the ovary and its peritoneal envelope. When such unfortunate conceptions take place, the patient will regard herself pregnant, since all the rational signs of pregnancy are present, such as cessation of the menses, sickness of the stomach, enlargement of the breasts, and a deeper tinted areola. Neither can we determine by the most critical examination, the exact condition and impending danger that threatens the life of our patient. We may determine by exploration that the uterus is unimpregnated, but our diagnosis must be negative, and conjectural in character. If we find all the rational signs prominently marked, and the uterus unimpregnated, we may, with great confidence, *infer* that one of the several forms of extra uterine fœtation above alluded to may exist. If the patient complain of pain or discomfort during any one of the forms of extra uterine pregnancy, we are not likely to attribute her indisposition to the true cause. We are assured by the best authority that there are no diagnostic indications that characterize unmistakably the peril that awaits the unfortunate victim. The first indication of danger will often be an instantaneous rupture of the sac, followed by intense pain, exhausting hemorrhage, pallid face, and all the indications of speedy dissolution. We are told that under such circumstances, we are left to the painful alternative of soothing the suffering, the cause of which is entirely beyond our control.

Numerous instances are on record in our text books on obstetrical practice, in which the subject goes on to the full period of gestation, and even many months and years beyond that period, and the cyst remains intact. Then, again, natural labor pains come on at or about the completion of the ninth month, in some instances resulting in the rupture of the sac, with all its disastrous consequences. Many instances are recorded where the fœtus dies and remains incased in its covering, an innocuous mass within the cavity of the abdomen—the vitality of the cyst in such cases is preserved, and the contents remain undisturbed, without compromising the life of the mother.

Generally, we are told, however, that the development of the cyst ceases with the life of the fœtus—the circulation becomes more feeble, the parts atrophied and remain in that condition until adhesive inflammation is set up and cements the walls of the cyst and the adjacent parts, ulceration follows, and a communication is established with the rectum, colon, or any other organ with which it happens to approximate at the time, and the diseased mass is thrown off through these channels. An instance of this kind (a patient of the late Dr. Edson Carr,) came under my observation a few years since, in which the bones and putrifying debris of an infant, at the full period, were removed with great difficulty from the rectum. The mother in this case recovered after a long period of suffering from the pyæmia and consequent exhaustion, resulting from the presence and removal of the diseased mass. In view of the conservative efforts of nature, in rare instances, to cast off this foreign body, we may very naturally and profitably inquire can there be any surgical interference that will afford a reasonable chance of deliverance from the impending results.

There was a time when ovariotomy was deemed so hazardous that patients were allowed to sink down and die rather than submit to the chances of an operation. But now recovery is the rule, after the removal of ovarian tumors, and success follows the use of the knife in hundreds of instances all over the land.

If the diagnosis can be satisfactorily established in a case of extra uterine fœtation, I hold we are warranted in giving the patient the benefit of a chance attending an operation for its removal.

A case of this kind I find recorded in the *British Medical Journal*, in which Prof. McCulloch of Montreal, removed a child from the abdomen by the Cæsarean section, and the mother recovered. The above well authenticated case sets forth the fact, notwithstanding the protestation of surgical interference by the authors of our American and Continental

text books on this subject; and I hold that gastrotomy is not only justifiable, but it is the bounden duty of the surgeon, when the diagnosis is clear, either in the rupture of a fœtal cyst, or in pelvic hæmatocele to operate at once, remove the accumulated blood, and tie the bleeding vessels. Dr. Stephen Rogers, of New York, has written an elaborate memoir upon this subject, in which heclaims that in all cases of extra uterine pregnancy there is an intra-uterine decidua cast off, attended with slight hemorrhage, at some period varying from six weeks to several months, and is often mistaken by the patient for a return of the menstrual period. This extrusion or expulsion of the decidua is regarded by Dr. Rogers, taken in connection with the other signs spoken of, as a pathognomonic indication of this abnormal condition.

The only pathological condition liable to be mistaken for a rupture of a fœtal cyst is pelvic hæmatocele, which, in some of its leading characteristics bears some analogy to the former disease. But a careful scrutiny into the history and antecedents of the case, will reveal the differential diagnosis so decidedly as to settle the question in the mind of any acute observer.

I would refer those who wish to make a more critical analysis of the subject to a statement published by Dr. Rogers, of New York, in the *Medical Record* for April, 1868, in which he has set forth, in a tabular form, the differential indications that mark these anomalous conditions.—*Buffalo Medical and Surgical Journal,* March, 1872.

Ophthalmology and Otology.

ART. VII.—*The Operation for the Extraction of Cataract.* By WM. F. SMITH, M.D., of San Francisco.

Historical Remarks.—At the beginning of the last century cataract was supposed to be a membrane or skin existing in front of the crystalline lens and behind the cornea.

In 1705, Brisseau, Jr., presented the first paper to the Academy of Sciences, demonstrating by autopsies, that the seat of cataract was the crystalline body itself, and also that the existence of the lens was not indispensable to the func-

tion of vision, which had been believed up to this time. This fact being determined, extraction of the *cataractous* or *opaque lens* was attempted by Freytag, Heister, Taylor and others, and in 1752, Daviel had already operated on 206 cases of cataract, of which 182 are said to have been successful. In 1773, Richter proposed the operation of discission for the treatment of cataract. This operation was practiced by Beer in 1792, by Conradi in 1797, and quite extensively by C. J. M. Langenbeck in 1811. Shortly after Richter's experiments, Willburg introduced (1785) the very dangerous and irrational operation of couching.

Experience has proved, however, that discission is practicable only in a certain class of cases, namely, in that small minority where the cataract is congenital, or occurs in very young subjects; and that couching is accompanied by so many unavoidable dangers that no careful surgeon can think of practicing it, and in modern works on ophthalmology it is only mentioned as having a certain historical importance. The earliest extractions were made through a linear incision in the cornea (viz.: an incision following one of the meridians of the ocular globe), in 1707. A. G. Richter, in 1771, was the first to definitely fix and point out the indications for extraction. Beer abandoned the linear incision and substituted for it, one made parallel to the periphery of the cornea, producing a flap in that membrane. His operation has since been known as the *flap extraction*, and is still practiced by a number of oculists, both in this country and in Europe. It is, however, fraught with many dangers even in the hands of the most expert, and statistics show that it has never furnished less than 25 per cent. of failures, but nevertheless it was a great improvement over the former method showing failures in at least one half of the cases. Jacobson first proposed to make a linear incision in the sclero-corneal junction. In 1855 Græfe took up the subject, and as the result of his studies and experience, presented his first memoir on the *Combined Linear Extraction in* 1859.* In a summary of general results of operated cases, Græfe re-

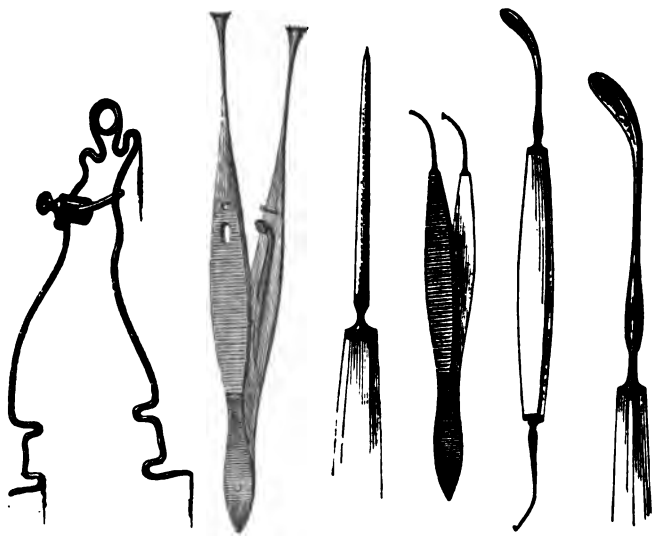
* *Ueber Zwei Modificationen der Staar operation.* (*Archiv fuer Ophthalmologie*, 1859, v. 1, p. 158).

ports 2.8 immediate failures, and 6.8 incomplete results after 100 operations. Other oculists, who have presented tabulated reports, viz.: Arlt of Vienna, Critchett of London, and Wecker of Paris, state that in 100 cases, 5 to 5.5 are immediate failures; 10 require secondary operations, of which 5 are ultimately classed among the complete losses, leaving 85 immediate complete successes, and 90 ultimate successes. Different operators naturally show slight variations in their statistics.

The following description of this operation is illustrated by photographs, showing perfectly, clearly and distinctly the proper position of the surgeon and his patient in its principal steps. We have taken the liberty to make reduced copies of photographs found in an excellent work published by Drs. EDWARD MEYER and A. DE MONTMEJA (*Traité Des Operations qui se pratiquent sur l'œil.* PARIS, 1871).

It is not the province of this paper to consider the indications necessitating extraction of the lens, but the opacity of that body being diagnosticated, we shall attempt only to present the modern solution of the question which has occupied the attention of ophthalmic surgeons for nearly two hundred years. *How may the crystalline lens be removed from the eye with the least possible damage to the integrity of the ocular globe and the remainder of its contents?*

The evening before the operation the patient should take a purgative, so as to insure quietness of the bowels for at least forty-eight hours after. A few drops of a solution of the Sulphate of Atropia (gr. jv, ad Aquæ Dest. ℥j) should be instilled into the eye the evening before, and also in the morning before the surgeon arrives, in order to insure dilitation of the pupil, which facilitates the operation and leaves a larger pupillary field after the eye has completely recovered, also where small masses of cortical substances are accidentally left they are not so likely to completely obstruct the passage of light to the fundus. It may be needless to observe that the radiating and circular fibres of the iris do not readily contract after iridectomy and removal of the lens and its capsule, either under the stimulus of light or the influence of atropia.



A B C D E F

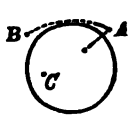
The instruments necessary are: 1st, the wire stop speculum—A, Figure 1; 2nd, the fixation forceps—B, with a spring; 3rd, Græfe's cataract knife—C, the blade is represented of its natural size; 4th, a pair of iridectomy forceps—D; 5th, a pair of small curved scissors; 6th, a cystitome furnished with a Daviel's scoop—E; 7th, Græfe's hard rubber curette—F.

The importance of this operation should cause the surgeon, before he begins, to take every precaution to avoid accident. He should first place his patient in the proper light, and not be satisfied until he is sure reflections from any source will not be likely to embarrass him in his manipulations. The instruments should be placed conveniently near, and the bandage made ready. To operate on the right eye, the surgeon should place himself behind the patient's head; if on the left, he should sit on the bed or table in front. There is a peculiar relation existing between the surgeon and his patient. The first essential to success is thorough confidence on the part of the operater in his own ability, this engenders confidence and trust on the part of the individual undergoing the operation, and will probably decide the question as to whether chloroform should be admin-

istered or not. If the inconveniences of the anæsthetic can be avoided, the moral effect is much better, for if the patient feels, after the bandage is placed in position, that the operation is successfully over, he is much more content to remain quiet and to observe the directions which have been given him. On the contrary, the patient, on recovering consciousness after the operation under chloroform, is nauseated, suffers from headache, feels the bandage, and is uncertain as to the result; his anxiety and general depression militate in a certain degree, against the kindly healing of the wound, and somewhat favors the inception of inflammatory processes.

The operation may be divided into four steps or periods: 1st, *The incision;* 2nd, *The iridectomy;* 3rd, *The laceration of the capsule;* 4th, *The expulsion of the lens.*

I. *The Incision.*—After having placed the stop speculum in position so as to firmly hold apart the lids, a fold of the conjunctiva should be seized immediately below the end of the vertical diameter of the cornea, with the fixation forceps, thus firmly fixing the ocular globe; the point of the long slender knife with the cutting edge upwards is made to pierce the sclerotic at a point situated about one half of a line from the border of the cornea, and at about the relative position represented in Fig. 2 at A. The knife should be directed toward the ideal center of the sphere, of which the cornea is a segment, viz.: towards the point C in the diagram. (See photograph 1). It should be kept in this direction until its point has passed about two lines from the periphery of the iris, when the handle of the knife should be depressed and its point directed across the anterior chamber towards B, where the counter-puncture is to be made. (See photograph 2). This point should be as symmetrical as possible, with the point of entrance in its relative position and distance from the cornea. If it should be too low down, or at a greater distance from the cornea than its fellow, the knife is liable to make a wide and irregular wound, allowing the escape of vitreous fluid even before the iris has been excised. If too close to the cornea, the resulting wound



will be irregular in shape, perhaps not long enough, and will thus offer difficulties to the exit of the lens. After the point has passed the sclerotic the knife should be pushed vigorously forward, and at the same time the handle should be slightly rotated so that the edge may be directed upwards towards the sclero-corneal junction. If possible, the scleral incision should be finished with one sweep of the knife, or at most, in passing the knife from point to heel, and the return motion from heel to point; too much sawing causes a ragged irregular wound. When the knife has passed through the sclerotic, and its edge lies under the conjunctiva, it may be directed slightly backwards towards the cul-de-sac, so as to leave a conjunctival flap of about two lines width. The entire incision should be of such a length, that if the points of entrance and exit of the knife were joined by a straight line, this line would be only a little longer than the upper side of a hexagon inscribed within the cornea as a circle, viz.: about the length of the diameter of the lens. If these directions are closely followed the incision is essentially linear as regards the ocular globe; that is to say, it follows, in its entire extent, one of the great circles or meridians of the ocular sphere, and the intra-ocular tension, which is naturally exerted from the center toward the circumference in the direction of the *radii* of the sphere, does not necessarily cause the wound to gape; hence its great and obvious advantage. Its position near the canal of Schlemm and the conjunctival ring, so richly supplied with nutritive vessels, greatly facilitates the subsequent healing process. The aqueous humor having escaped, the lens advances, pushing the iris before it, until it is in contact with the posterior surface of the cornea, a small portion of its periphery generally appearing in the track of the wound. The equator of the lens is very near to the line of the incision, but the existence of the iris, the ligament and capsule of the lens prevents its escape from the eye.

II. *The Iridectomy.* (See photograph 3).—As before stated, the iris is pushed forwards by the evacuation of the aqueous humor, and a portion of its periphery appears in

the wound. If it is not fully in view, the assistant (to whom the fixation forceps should be entrusted during this period), should draw the eye downward and the conjunctival flap be lifted away from the wound and placed on the cornea. The presenting portion is then seized by the small mouse-tooth forceps and drawn outwards until it forms a triangle. One side of this triangle is then divided with the curved scissors close to its base; that is, as near as possible to the denuded sclerotic; further traction is then made with the forceps, in order to draw the part of the iris just excised and still between the lip of the wound, well within the globe, when the other side of the triangle is divided in the same manner as was the first. If both ends of the iris do not recede within globe, the forceps and scissors should be again used, so as to avoid entanglement of any portion of the iris in the wound, as it interferes with the healing process and may be the cause of persistent iritis, besides narrowing the pupillary field.

III. *Laceration of the Capsule.*—Before proceeding with this step the wound should be well cleansed by allowing a drop of water to fall upon it from a small fine sponge; this has the effect of causing the incised iris to retract still farther into the eye, and will prevent excessive bleeding. If the anterior chamber contains any blood from the conjunctival ring or from the iris, the eye should be closed a moment, in order to allow accumulation of aqueous humor, and then lightly pressing upon the scleral side of the incision with the curette, and at the same time upon the cornea, keeping the lid between the finger and the eye, the blood, now somewhat diluted with the aqueous, may be evacuated. The operator then retakes the fixation forceps, and firmly fixing the globe, introduces the cystitome, its flat surface passing between the lips of the wound, and carefully conducts it across the anterior chamber to the opposite side of the pupil, when, by rotating the handle, the little blade is made to sink into the capsule, and the instrument is drawn back to one angle of the wound. It is then replaced in the point at which the laceration was commenced, and drawn to the other angle, thus including a triangular portion of the

capsule with its base at the incision. The cystitome may then be glided along the equator of the crystalline, and the opening in the capsule is complete.

IV. *Extraction of the Cataract.* (See photograph 4).—The convex surface of Daviel's scoop is now placed on the lower lip of the scleral wound, and sufficient pressure exerted to cause it to gape, at the same time the hard rubber curette of Græfe is lightly pressed on the sclero-corneal junction over the opposite side of the equator of the lens. As the wound opens, the margin of the cataract engages between its lips, the pressure by the curette is gradually and carefully increased until the crystalline has passed the horizontal diameter of the cornea, when by a sudden movement, generally, the expulsion is complete. The proper manipulation of the hard rubber curette is imperative in order to insure the entire evacuation of the cataract with the free portions of cortical substance which generally surround the nucleus. Pressure on the cornea should at first be just sufficient to cause the lens to advance, and then should not be diminished, but rather increased, and the curette should not be passed over the cornea too rapidly, but slow enough to insure the movement of any cortical masses which may be detached from the crystalline. If, however, any such masses should remain, they may often be removed by judicious gliding movements of the lower lid over the cornea, from below upwards, being careful not to allow the wound to gape too much, thus favoring a rupture of the hyaloid and escape of a portion of the vitreous humor. As soon as this period is completed, the speculum is withdrawn, and the conjunctival flap is replaced over the wound. If all cortical masses and blood have been thoroughly evacuated, the pupillary field is perfectly black. The compress bandage is now carefully adjusted, covering both eyes. If the patient experiences no pain, it is best to leave the bandage in position, at least twenty-four hours, when it is removed, the eye cleansed, and a few drops of the solution of atropine instilled. Græfe was in the habit of taking off the bandage six hours after the operation, in order to note the condition and relieve any unequal tension which might hinder the

patient's comfort, but this custom, it seems to us, is rather dangerous, as the wound, already partially healed, may be interfered with, or even made to re-open, and freedom from pain is a sufficient indication, that the eye is free from any hurtful inflammatory process. In some of the best results of our experience we have allowed the bandage to remain as long as three days. The patient is confined to his bed two or three days, great care being taken that no rapid or violent movement is made during the first twelve hours of his confinement. The bandage should be replaced every twenty-four hours, until the fourth or fifth day, when a simple shade may be substituted. After ten days the patient may generally be allowed to leave his room and resume his ordinary occupations, taking the precaution to wear blue glasses until ready for the cataract lenses.

Accidents.—Reference has already been made to accidents liable to occur in regard to the points of puncture and counter-puncture with the knife. It should be added, however, that often, when the knife is traversing the anterior chamber, the point is liable to become entangled in the iris; when this happens, the knife should be carefully withdrawn until it becomes disengaged, being careful to keep it in the same position, not rotating the handle or changing the direction of the blade, in order not to allow the escape of more of the aqueous humor than necessary, because, as the anterior chamber becomes narrower, the subsequent passage of the knife becomes more difficult. When the knife is again free, the incision may be completed. If the wound is thought to be too small, it may be extended with the blunt-pointed scissors. If the incision is too great in length, great care in the subsequent steps of the operation must be exercised to avoid rupture of the hyaloid and escape of the vitreous humor. In this case, it is best to remove the fixation forceps, as more or less pressure on the globe must be made in their employment. If the patient is not anæsthetized, he is the best possible assistant, because, by quietly directing him to look downward without rapid motion, the wound is brought well away from beneath the upper lid, when the presenting portion of the iris may be seized with the forceps and excised with little danger of rupture of the hyaloid,

the eye and its contents being in a normal condition. If the patient is under chloroform, as much care as is possible should be taken not to exert unnecessary pressure on the globe. In a certain number of cases, however, and in spite of all precautions, the escape of a portion of the vitreous body is inevitable. If it occurs before the iridectomy, it is a very untoward circumstance, as a considerable quantity may come away, before the operation can be completed; but no time should be lost in excising the iris, and the extraction should be accomplished by passing Daviel's scoop, or the hard rubber curette of Græfe, behind the lens, lightly pressing it upwards against the posterior surface of the cornea, and by a traction movement, withdrawing it from the eye. Care should be taken to pass the curette well behind the crystalline, so that no portions of cortical substance can be left in the eye, as it is not advisable to re-introduce the instrument. In case a portion of the vitreous should escape after the iridectomy, it is not a matter of much moment, as the completion of the operation is effected in the usual manner without necessitating a very large loss of that body. If this loss does not exceed one fifth of the entire vitreous body, it is readily reproduced, and generally no very unfavorably resulting complication need be anticipated.

In the first series of operations reported by Græfe, escape of vitreous occurred once in eight times. In his later reports, he admits only one such accident in twenty-five cases. According to Arlt's (of Vienna) reports, it occurs once in seven times. Wecker, of Paris, reports it once in six cases, and Knapp, of Heidelberg, admits one to four.

The rapidity with which the healing process is instituted and completed after this operation, is something remarkable, when no accident or other complication retards it.

Irido-choroiditis with *phthisis bulbi*, occurs in an extremely small percentage of cases. It has, in fact, almost disappeared from the statistics of reported cases. The most frequent complication following extraction, is the development of an iritis, or irido-choroiditis, generally of the mixed form of plastic and serous inflammation. This more frequently results in occlusion of the pupil, making a secondary operation necessary.

Editorial.

ART. VII.—*Letter from Dr. DuBois, of San Rafael.*

SAN RAFAEL, March 30, 1872.

Messrs. Editors:—I propose, if agreeable to you, to contribute, from time to time, a brief account of cases which present points of interest, and which have occurred, or may occur in a country practice, or in that of a small town.

It has been said that those engaged in hospital practice owe a duty to the profession; they having opportunities for more extended and careful observation of cases than falls to the lot of those otherwise occupied. This is undoubtedly true, and the obligation is now generally recognized in this country, and to some extent, at least, fulfilled. Thus we have the "Reports of Bellevue Hospital" in New York, of the "City Hospital" in Boston, and of the "Philadelphia Hospital" in the city of that name.

It seems to me, however, that those engaged in general practice have a similar duty to perform. Why should not the profession generally recognize and fulfill this duty? All are supposed to have profited by the experience of those who have gone before them, and they owe to those who shall follow, that they transmit medicine and surgery—not only the principal, but also interest thereon; and to themselves, each owes the other a knowledge of all that will aid in the cure of disease. While we look to our hospitals for much of our pathology and morbid anatomy—for series of accurately recorded cases showing the success of particular kinds of treatment—for accounts of rare diseases and remarkable surgical operations—in fine, for much that shall go to establish principles, as well as for many of the curiosities of the profession, it strikes me that the field of the general practitioner is not a limited one, though it may perhaps be said, that when rightly cultivated, it chiefly teaches the application of principles to individual cases. In the hospital we can cut off the patient from many sources of error in diagnosis, prognosis and treatment, we can not only examine him before, but after death, while we frequently cannot do these things in private practice. Likewise we have, if we operate in a hospital, assistants and consultations, whereas in a country practice we frequently can have neither, and have often to

resort to expedients to take the place of needed apparatus. Many questions of great interest must be answered, if at all, by the practitioner in sparcely settled districts—such as those connected with contagion and the rise and mode of spreading diseases—while conceding to the hospital questions that can only be answered by the careful observation of a large number of cases, the general practitioner can contribute isolated cases of great interest, either alone, or when linked with similar ones. I believe that a brief statement of many of the cases which fall to the lot of almost every country practitioner, if given accurately and if properly selected, would be of value to the profession generally, and would serve not only to show the student the difficulties encountered in actual practice with the means of overcoming them, but would tend to enforce upon those engaged in hospital practice the fact, that each case must be considered by itself, as no two constitutions are exactly alike, and that in the careful adaptation of remedies to individual peculiarities lies much of the success of treatment. A thorough acquaintance with our patient's constitution and habits, and that of his forefather's, will often enable us to give a correct prognosis and frequently render our knowledge of disease thorough and our treatment successful. This knowledge probably is acquired more by those in country than in city practice. I propose, then, under the head of "*The San Rafael Clinique,*" to give, from time to time, the history of cases either alone or in series, to mention operations of special interest, and to select them without regard to the result of the case, but simply for their value as illustrating treatment, or from some interesting peculiarities in them. I shall only be too glad if others will contribute from their old notes similar cases.

Besides, the habit of "care taking" is cultivated thereby, physicians will be put in closer relation to each other, and will learn something of each other's practice. Aside from this result, medical journals of a practical kind will not only grow up and be well supported, but will serve as a medium of communication for the *whole* profession, which we may then not unreasonably expect to see, as a rule, members of *living* county and State societies; also an *esprit de corps* will be generated which will do much to abate the asperities with which the outside world credit us, and often only too truly.

(Signed.) H. A. DuBois, Ph. B., M. D.

We insert the above communication, with the earnest hope that others on reading it, may be induced to contribute towards the double end of instructing, and of using

the Journal as a means of exchange of views on professional subjects, one of the surest ways to bring the entire profession into closer relations and, as Dr. DuBois says, "to abate the asperities" with which we are credited. We wish to give a prominent place to transactions of Medical Societies, reports from which we solicit. Off-hand discussions and debates are better introducers than formal papers, and the publication of such reports, apart from their intrinsic merit, will tend to remove unfounded prejudices. We also want reports of cases singly or collectively; particularly do we want tabulated reports. These are the most instructive. What may admirably succeed in one case may disastrously fail in another; but, if in a series of *like* cases, a new remedy or new combination of old ones, a new splint or an original adaptation of an old "stand by," invariably produces gratifying results, more effective than any means heretofore used, the profession will have greater confidence in it, and sooner test it practically than on the strength of the report of a single trial. We will cheerfully insert any article sent us (if deemed proper for our pages), as soon as practicable and, if necessary, photograph the specimen described, or give a wood-cut illustration of new inventions.

It is the boast of our liberal profession that we publish to the world our discoveries, for the benefit of the whole human race; and yet we are called illiberal, because we refuse to recognize quacks and their "patent medicines!" We *do* despise the "quacks," whose lives are a continual lie and deceit. They are like the "Greek" described in the following extract from a daily paper: "Which of the Fejee Islands are you from?" asked a visitor of one of Barnum's cannibals the other day. "Tipperary, bedad," was the reply of the ravenous anthropophaginian." As for their "nostrums," they are only worthy of such parentage.

ART. IX.—*New Medical Journal.*

The *Alta* of the 13th inst., announces that "the Homœopathic system of medicine is to be hereafter represented in the columns of the *Pacific Journal of Health*, to commence with the May number. The object is to give to the public popular instruction in its principles, so that they can be easily comprehended, and to impart a knowledge of the science, free from technical terms and dry disquisitions. We understand that the first number in May will contain a well illustrated case of the successful removal of nearly five feet of intestines from a lady in Chicago, by Homœopathic Surgery."

On first reading this notice, we thought of that literary and, so called, professional monstrosity, *Hall's Journal of Health*, and supposed this was to be a parody on that. On second reading, we were forced to believe the *Alta* as waxing facetious, as trying to impose on an intelligent community a second "Sea Serpent" story, or the old "Mermaid" worked up into new shape, or to be endeavoring to propound a conundrum in a very obscure manner.

"Homœopathic Surgery" is *very* good! If we understand it correctly, it must mean in this instance, the removal of five feet of intestines, in microscopic sections, by infinitessimal incisions! We have heard of women offering themselves as martyrs for their husbands, lovers, or even to save their country; right or wrong, their devotion to a cause will often, owing we suppose to their peculiar organization, induce them to suffer anything—reproach, shame, pain, and even death, to prove their fidelity; but this is the first instance on historic record where a female has deliberately submitted to slow torture, to minute dissection, to the loss of one sixth of her alimentary canal, to prove the blessings of homœopathic surgery, when by *one* allopathic sweep of the knife with a little concentrated pain, the redundancy of intestines could have been removed almost instantly. Possibly a homœopathic knife may, by being brought into minute contact with some Hahnemannic "Davis' Pain Killer," sufficiently diluted, possess a power of mitigating the acute suffering, which of necessity follows the track of its allopathic brother, then the propriety of repeated minute sections of intestines, will at once become manifest. As we are not sufficiently posted

on this subject, we only throw out the suggestion, and wait with feverish anxiety for the advent of the *Journal of Health*, with which we will gladly exchange, to enlighten us.

We also learn from the daily press, that there is to be a homœopathic medical college, a hospital and dispensary at once established, to burst upon the unoffending citizens of this railroad-persecuted and congressionally-abandoned city. What is the cause of this sudden outpouring of *minute* generosity?

Lately the natal day of the prophet was celebrated. The State Homœopathic Society, composed of about eight of that faith, met. Not long since, an equal number of like practitioners residing in this city, repudiated the aristocratic eight of whom only about one half resided here; and seceded. How are we to know who are who? The man weighted down with "pathogenesis" is President. Perhaps the rest could not stand so much science! We can suppose many things, but possibly we cannot imagine all the *minutiæ* of that profession, and so leave the subject, only expressing our intense curiosity to know what is coming next. Whose five feet are next to be offered? Who is longing for a homœopathic ligation of his femoral, when severe hemorrhage is carrying him off? Whose throat is hankering for a homœopathic tracheotony tube, when membraneous croup is choking him?

There are several other conundrums we would like to ask, but we refrain.

ART. X.—*Obituary Notice of Dr. Letterman.*

We promised in our last to obtain the resolutions passed by the California Commandery, of the Military order of the Loyal Legion, U. S., on the occasion of the death of the late Dr. Letterman. We publish the circular entire, adding our full endorsement of the sentiments expressed therein

The ambulance system alone would give to the mind whence it originated, a universal reputation:

"MILITARY ORDER, LOYAL LEGION, U. S.
Headquarters, Commandery of the State of California.
SAN FRANCISCO, CAL., April 5, 1872.

CIRCULAR.

"At a stated meeting of this Commandery, held at Army Building, corner of Third and Market streets, on Wednesday evening, April 3d, 1871, the following report of a committee appointed to draft resolutions relative to the decease of Companion Major Jonathan Letterman, formerly of the U. S. Army, and Medical Director of the Army of the Potomac, was adopted:

REPORT.

"*Whereas*, it has pleased Almighty God to strike out from the roll of living men, our late friend and companion, Major Jonathan Letterman, who died in San Francisco, Cal., March 22d, 1872:

"*Resolved*, That this Commandery hereby tenders to his bereaved family and relatives, its heartfelt sympathy for them, in this their great sorrow:

"*Resolved*, That while in his death the medical profession loses one of its brightest intellects, his life has not been unfruitful of most important results, our late civil war having afforded the opportunity for the exercise of that rare administrative ability which organized and perfected the ambulance system of the Army of the Potomac, a system deemed worthy of adoption in the armies of Europe, and by which it is believed that the unavoidable concomitant horrors of war are greatly ameliorated:

"*Resolved*, That a copy of these resolutions be furnished the family of the deceased; that they be entered upon the records of this Commandery, and be published in the *Army and Navy Journal*.

[Signed] "Companions: C. G. SAWTELLE, Brevet Brigadier General U. S. A.; R. C. SPALDING, Pay Inspector U. S. Navy; W. R. SMEDBERG, Brevet Lieutenant Colonel U. S. A., Committee.

"By order of Major General JOHN M. SCHOFIELD, Commander.

[Signed] W. R. SMEDBERG, Recorder."

ART. XI.—*Obituary Notice of Dr. Samuel Jackson.*

The newspapers of the 6th inst. announce the death of Doctor Samuel Jackson, at his residence in Philadelphia, Pa., on the 5th inst., in the 85th year of his age.

The Doctor was descended from one of the most respectable families of that section of our country. He received a classical education, and graduated in medicine with marked distinction about the year 1810, but family circumstances delayed his entering upon the practice of his profession for a few years. Subsequently he resumed his favorite pursuits with such devotion and success that he early took rank among the leading practitioners of his time. His superior abilities soon caused him to be selected, from a large number of talented men of that day, to fill a chair in the medical department of the University of Pennsylvania, then the leading medical school of the country. At so high a value were his abilities estimated that a separate professorship, not existing in that school before, was expressly organized for the purpose of securing his valuable aid in sustaining the high character of that school, viz.: the professorship of Therapeutics, and which he filled with unsurpassed ability for twenty-eight years. His intelligence, earnestness, eloquence, and wonderful amiability of disposition, combined to render him one of the most popular teachers of his time, until advancing years and failing health admonished him of the propriety of retiring from the excitement, labor and responsibility of professional duties. It is not a little singular that long after his retirement to private life, these fascinating and accomplished traits of character were in full vigor to the last time of the writer's personal intercourse with him, some four years ago, and, as he has reason to believe, to within a few hours of his death. This is the more noteworthy, as he was of a decidedly delicate physical organization, and from the age of twenty-five was almost a constant sufferer, sometimes to an excessive degree, from neuralgic derangements, which, for a number of years before his death, had rendered his lower extremities entirely useless and incompetent to locomotion.

It is to be hoped and looked for, that some competent biographer will, ere long, do justice to his memory.

ART. XII.—*Malpractice Suit.*

From the *Alta* of 7th inst. we clip the following:

"*Suit Against a Physician.*—John P. Walton commenced suit, yesterday, in the Fourth District Court, against Dr. David Wooster, to recover $30,000 damages for having shortened his leg an inch and injuring the knee joint. The complaint sets forth that on the 18th of September, 1871, plaintiff was kicked by a horse and had his right leg broken between the knee and the ankle. On that day he employed defendant, Dr. Wooster, to set and heal his leg, and he undertook to set and heal it and to attend and care for the plaintiff; that the defendant so negligently, and unskillfully, and carelessly conducted himself in setting and attempting to heal the leg as to destroy the knee joint thereof and to make said joint a permanent source of pain, discomfort and danger, and to make his leg more than an inch shorter than it had previously been and than plaintiff's left was and is, and to render said right leg useless, and to cause him to be badly lamed and crippled for life, without the possibility of said leg ever being restored to its normal length or the plaintiff ever having any proper use thereof; that if such surgeon had conducted himself skillfully and carefully, as it was his duty to do in and about the setting and healing of the broken leg, the plaintiff would have been restored to the full use thereof; neither would said joint have been destroyed; nor would it have been made a source of pain, discomfort or danger; nor would it have been shortened or rendered useless; nor would plaintiff have been lamed, and crippled or permanently injured. He demands judgment for $30,000 and costs."

We know nothing about the merits of this case, but it is perfectly safe to assume that the Doctor is on the right side. As there is no law which can shield the professional man when suit is brought against him, every worthless patient incited by some "shyster" lawyer who will undertake the case for the prospect of a verdict in his favor and a commission on the award, will bring suit, and although it is almost invariably decided against the layman, it has the effect of injuring the medical man in reputation and pocket, and he has no redress at law. These cases are generally brought by non-paying and non-obedient patients who worry the attendant by not following directions during sickness, by total neglect of all sanitary recommendations after the attendance has ceased, and then reward the unpaid services by

an attempt to ruin the reputation by means of which Doctors live, and in addition swindle him out of costs and lawyer's fees, to say nothing of possible award by jury.

We fully sympathize with Dr. Wooster in this case, and sincerely hope that a law will be passed eventually, to protect innocent people from the annoyances and persecutions of designing men.

From the *Philadelphia Inquirer*, we cut the following:

"*No more Counterfeit Diplomas.*"—Very wisely and justly the Legislature has repealed the characters of the bogus Pennsylvania (Paine's) and the Pine street (Hylton and Buchanan's) colleges. The honorable reputation of Philadelphia these disreputable establishments for many years have prostituted for the sake of gaining a few paltry dollars by the sale of bogus diplomas. Their shameful traffic is at an end, and the good name of our city relieved of one more infamy."

The Legislature should have gone a step farther and empowered all chartered medical colleges to revoke the diplomas of those graduates who prove renegade to the sacred and sublime obligation taken on receiving the degree of M.D. The standard of requirements for this is so low, that many who reach it, and go out into the world to practice are, through incompetency, unable to make an honest living. They consequently apostatize, and by quackery live, assisting their patients by the same means to die—yet they retain the diploma as proof of their ability. The regular school of practice they call a humbug, yet its certificate is paraded to prove that those (supposed to be) educated in its doctrines, are thereby rendered more capable of success in the humbug they practice. Why not be honest, and scorn to exhibit the diploma of the school they affect to despise while practising, contrary to its teachings? Who ever heard of a man educated and graduated in a homeopathic school, proudly exhibit *its* diploma, and then practice honorably as a regular physician? We don't think that any business man would take it for collateral security, if it were a question of his life or death.

Miscellaneous.

ART. XIII.—*On some Sanitary Questions.* By H. W. BOONE, M. D., Prescott, A. T.

In these days of universal knowledge, we can seldom pick up a paper without seeing some allusion to the laws of hygiene, and every intelligent person thinks that *he* has a fair amount of information on the subject. Unfortunately, however, we seldom see any judicious application of these laws, and persons go on in their old ways as if nothing better could be done. Few persons either know or care as much as they should about the laws which govern their health; and it is extremely desirable that the general community should have distinct and practical views on these subjects, and be impressed with the importance of putting them into practice.

In our new States, building is continually going on, new towns are springing into existence, old ones being enlarged, and the health of the present and of future generations of the people will depend to a considerable extent upon the judgment with which the permanent habitations of these communities are placed and constructed.

In the great cities of the world, the subjects of water supply, ventilation, and drainage have of late years received much attention, and the care bestowed upon them has shown results in a lessened mortality among the population. It is from the statistical reports of large armies, however, that we are enabled to get the most decisive evidence on this point; and in "Parkes' Hygiene" there is a very conclusive report on the subject. During the years 1826–1846 the annual mortality of the English army was about 17.68 per 1,000 of strength. During the years 1859–1863, the mortality ranged from 9.965, to 8.86 per 1,000 in the last years. These remarkable results were not peculiar to the English army. In France in 1823, the loss was 28.3 per

1,000; in 1846, 19.9, and in 1863, 9.22. The Russian army lost before 1857, 39; but from 1857–1861, only 18.7 per 1,000. In other armies the same rule holds good. Fevers (chiefly typhoid, in all probability) and phthisis were the great causes of mortality. We are told that other conditions, such as age, time of service, invaliding, etc., were about the same, and were duly considered; and there can be no doubt that this most extraordinary diminution of mortality, in the later series of years over the earlier period, is due to the wise and judicious application of the laws of hygiene. Where we have at our hands the means of producing such results, it is well worth while to inquire into some of the most important points which are needed to bring about this great improvement.

One of the first matters to be considered is the supply of water. If this supply is in sufficient quantity for ordinary uses, and has no bad taste, most people are content to look no further, and yet what a potent source of good or ill depends upon the proper treatment of this question. The water should be supplied in such abundance that every one may have enough for drinking, cooking, washing, bathing, house-cleaning, and every conceivable use to which it is applied. This will take not less than sixteen gallons per head per diem. In towns, for sewers ten gallons more per head are required to insure the perfect removal of the sewage. Except in our cities, where water has been supplied in abundance by engineering works, very few houses have water as abundant and easily accessible as it should be; and one great cause of disease is the lack of personal and household cleanliness, especially among the poorer classes, due to the expense or difficulty incurred in obtaining the needful amount of water. The sources of and the purity of the water which we drink and cook with should be looked after much more carefully than they are. The conclusions of Dr. Parkes, based on a study of the subject, are as follows:

"An epidemic of diarrhœa *in a community* is almost always owing either to impure air, impure water, or bad food. If it affects a number of persons suddenly, it is probably owing to one of the two last causes, and if it extends over many families, almost certainly to water. Diarrhœa or dy-

sentery constantly affecting a community, or returning periodically at certain times of the year, is far more likely to be produced by bad water than by any other cause. A very sudden and localised outbreak of either typhoid fever or cholera, is almost certainly owing to the introduction of the poison by water. The same fact holds good in cases of malarious fever, and especially if the cases are very grave, a possible introduction by water should be carefully inquired into. The prevalence of Lumbrici, Guinea worm, or Bothriocephalus latus, should always excite suspicions of the drinking and bathing water."

Even in an economical point of view, the use of pure soft water is of importance, inasmuch as more soap is needed in washing where hard water is used. It has been estimated that in the city of London alone, the extra amount of soap used on account of the hardness of the water is equal to a cost of *two million five hundred thousand dollars annually.* As this cost tempts people to be less particular about cleanliness, health is thus affected.

All water contains more or less solids, of which carbonate and sulphate of lime, carbonate of soda, chloride of sodium and salts of magnesia and iron are the most common, and these within certain limits are not hurtful. Indeed, a good deal of the carb. of lime or soda, and of several other salts, may exist in drinking water without producing any ill effects; but the sulphates of lime and magnesia, and of the chlorides of calcium and of magnesium are injurious in small quantities. Water contaminated with animal matter, especially when of fæcal origin, and vegetable organic matter, when derived from marshes, is injurious. Almost all organic matters of animal origin in decomposing produce ammonia, nitric and nitrous acids, and the waters are rich in nitrites and nitrates. The most common sources of impurity in water are derived from the dwellings and the trades of men. Shallow wells are apt to be contaminated by floods carrying in surface impurities, and by sewage soaking from cess pits; the soil filters the water to a certain extent, but after a while loses its power. A well drains the ground around it in the shape of an inverted cone in proportion to its depth and the looseness of the soil. In a loose soil, a well of sixty or eighty feet will drain a large area, two hundred feet or

more. As there is now no doubt that typhoid fever, cholera and dysentery may be caused by water contaminated by the evacuations passed in those diseases, and simple diarrhœa is often caused by the suspension of animal organic matter, it is necessary to be on the lookout to detect and prevent these sources of disease. Wells should be covered, a good coping put around to keep detritus from being washed in; they should be at a distance from cess pits and dung heaps, and no sewer should pass near them. Springs should be protected in in the same way. In case of a river, we must consider if there are causes of contamination by excreta or from marshes; and the water should always be taken at a part of the stream above where the town outlets are situated. Where water is conducted through pipes, and especially leaden ones, it should never be allowed to stand long in them, if allowed to flow freely and often, the current will keep it pure. In examining water, taste is unreliable, as organic matter when dissolved is often quite tasteless. Decomposing animal matters must be suspended or dissolved in large quantities before they will give a fœtid smell. But little information can be derived from the mere *physical* examination of water, and where there are suspicions as to its character, it should be examined chemically, and also by the microscope.

It is important to know what quantity of air must be supplied hourly so to dilute the products of respiration and transpiration from the body, or of the combustion of light as to keep the air pure and fresh. This has been answered both by calculation and experiment. Taking the carbonic acid of respiration as a convenient measure we have the following calculation: A healthy adult man breathes out 40 volumes per 1000 of CO_2, in addition to an undetermined amount of fœtid organic matter and watery vapor to saturation; that is to say, about 0.5 or 0.6 cubic feet of CO_2 and 136 grs. of watery vapor are eliminated per hour, or from 12 to 16 cubic feet of carbonic acid gas in 24 hours. To dilute the expired air so that the amount of CO_2 shall be reduced to 0.4 per 1,000, more than 100 times the volmue

of expired air must be supplied, or per hour 16.66×100= 1,666 cubic feet. But as the added air contains some CO_2, and as the exhalations from the skin require to be also diluted, at least ¼ more must be added, which brings up the amount to 2,082 cubic feet per hour. General Morin, from analysis of all the observations made in Paris, and from experiments of his own, gives the amount of air needed per head per hour in temperate climates as follows: In barracks during the day when only partially occupied, 1,059 cubic feet, at night 2,118 cubic feet; workshops and theatres, 2,118 cubic feet; hospitals from 3,000 to 6,000 cubic feet. These are the least amounts required to keep the air pure, but of course a greater supply would be still better. Wolpert calculates that for every cubic foot of gas, 1,800 cubic feet of air must be introduced to properly dilute the products of combustion. A common gas-burner will burn nearly 3 feet per hour, so the amount of air needed to dilute the products of the combustion can easily be calculated. A cubic foot of coal gas produces about 2 cubic feet of carbonic acid, besides other substances in its combustion. Nearly as much air must be introduced for the combustion of 1 pound of oil as for 10 cubic feet of gas to keep the air perfectly pure. In order to keep air pure it must be continually changing, and the air that enters must be pure. At a temperature of 60 degrees, a rate of movement of 1½ feet per second, nearly 1 mile an hour is not perceived, a movement of 2½ feet per second is not perceivable by some persons, more than this gives a sensation of draught. The air should be well diffused through the room, and must be removed at once so that no person shall breathe his own expired air or that of another person, again. These rules should be remembered in the construction of all buildings, whether used as dwellings, offices, workshops, or places of public entertainment.

In securing a healthy location for building it is pretty generally understood that the site should be somewhat elevated, with no damp or marshy spot in the immediate vicinity; that it should be sufficiently exposed to the sun's rays, and be so located as to favor natural drain-

age. But it is also very important to study the prevailing direction of the wind, and be sure that the house or town does not get a current of air from the surface of some marsh or low grounds in the neighborhood; malaria will drift with the wind for several miles, and especially if the conformation of the country, as for instance a valley or ravine, gives it a channel, and prevents the diffusion which takes place in open country. While almost any variety of hard rock and moist sands make a healthy building site, clay, dense marls and alluvial soils are always to be looked upon with suspicion, as the water neither runs off nor runs through them, the locality is always damp, and, as much vegetable matter is frequently mixed with the soil the water is impure, the air is moist, and generally loaded also with impurities. The degree of density, friability, and penetration by water, is easily ascertained in both the surface and subsoil. Deep holes 6 to 12 feet should be dug and water poured on portions of the soil. Holes should be dug after rain and the depth to which the rain has penetrated be observed. In this way the amount of dryness, the water level, and the permeability are ascertained. In any spot chosen for building the ground should be drained with drain pipes; even in dry soils this is to be done, especially where the rainfall is heavy. The drains should be at the depth of from 4 to 8 feet and 12 to 18 feet apart. A good outfall should always be secured in choosing a location. If there is no outfall, drainage may be carried into deep pits, but *only* where circumstances compel the erection of buildings in low situations. These drains are intended to carry off subsoil water; surface water should be provided for by shallow drains. Brushwood should be cleared away, but trees left. In erecting a building the surface should be levelled, holes filled in, and those parts of the surface on which rain can fall from houses be well paved, and with good side gutters. It is of the utmost importance that the ventilation of *every* part of the house should be good. There should be an immediate and perfect sewage removal, a liberal supply of water for all purposes, and a construction of the house which shall insure dryness of the foundation, walls, and

roof. In laying the foundations of a house, where a cellar is built, care should be taken to use courses of hard stone or asphalte, in the walls, to prevent water from rising, and there should be openings for thorough ventilation. Where there is no cellar the house should be raised from the ground, and the air allowed to pass freely under it. The form of a house is of course matter of taste or convenience, but the arrangement should be such as to secure sufficient air space (and the more superficial space also the better), requiring not less than 1,000 cubic feet to each person in any of the living rooms. The ceilings should be tolerably high, the windows large and opening at the top as well as at the bottom, and so arranged as to secure a cross ventilation. It will not do to trust to doors and windows alone for ventilation; every room should be ventilated by openings in the walls, connected by tubes with the outer air, at the rate of 2 square inches to every 100 cubic feet of room space, or 20 inches of section area for every 1,000 cubic feet, the cold air inlets to be placed in the sides and usually part way up the walls, and the outlets of the same dimensions in the corners of the room at the top. These outlet openings should open into tubes carried up to the top of the house; they can be made of wood, round or square, and as straight as possible, with perfectly smooth internal surfaces to reduce friction to a minimum. These tubes should be covered by a cowl or hexagon, turning from the wind to aid its aspirating power and prevent the passage of rain into the shaft. Several forms of valves have been invented for these openings in the walls, of which the "Sherringhaur" is the best. The great advantage of these inlet and outlet openings is, that they bring in perfectly fresh air from outside and discharge the foul air clear above the top of the building, where it can do no harm, and there is a perpetual current of air flowing, not checked as is the case where doors and windows are depended upon for ventilation, for these latter may be so closed as to shut off all current. The inlet openings with a proper valve may be partially closed to modify the draught. Particular care must be taken that halls and stair-

ways shall be well lighted and freely ventilated, with separate openings of their own. The different rooms in a house open on these passages, and unless they are well aired they only serve the purpose of carrying foul air about and contaminating every place equally. How often upon entering a house are we greeted with a collection of effluvia, where the odor of yesterday's dinner, the smell of excreta, and that peculiar damp mouldy smell which pertains to all ill-ventilated places, tell their own story, and prepare us to look for faulty construction and arrangements. The open fire-place is one of the most simple, and at the same time valuable means of securing a good current of air in a room. Dr. Parkes states:

"In a room I have often examined the area of the throat of the chimney is 1.5 square feet; there is no down draught but an upward current, which, with a good fire, is 4 feet per second. The discharge then per second is 6 cubic feet, or no less than 21,600 cubic feet per hour. The capacity of the room is 2,000 cubic feet, so that a quantity nearly equal to the total air in the room passes up the chimney nearly 11 times per hour."

This shows the ventilating power exercised by a good fire-place of small size, without producing any discomfort to the persons in the room. Even in summer, when there is no fire, a chimney is an admirable ventilating shaft, and a constant current of air flows through it.

All sinks and water closets should be carefully trapped with a water joint, and the pipes so placed as to be of easy access, in case of repair being needed. As gases are largely formed, and always rise to the upper end of the sewer, there is great danger of their passing into the house in spite of traps. There should be plenty of openings into the drain sewers, and particularly just where the house drains join them so that the gases shall not press so hard upon the trap as to overcome the resistance. House drains may be ventilated to the best advantage near the closet by a pipe running up above the house. In country houses, where the sewage is drained off into a cess pit, this should be placed at some distance from the house. The privy must also be at a distance, and both far off from the well, if there is one.

The earth closets now coming into use are cheap, and as they prevent effluvia and neutralize the effects of any poisonous excretions they are very valuable, especially in the treatment of diseases. The recent illness of the Prince of Wales (typhoid fever), which was clearly traced to the contamination from the sewers through the water closets, is yet fresh in our memories, and should make us very careful to guard against these sources of sickness. In towns and villages, after the town lots have been properly drained and sewered, it becomes the duty of the community to see that the public means of removing the accumulations are sufficient. Here the question of proper water supply will usually come in. These remarks will apply to solitary houses as well as others, for many a country house is a den of sickness from its faulty construction and appliances, when it should be perfectly healthy.

The limits of this article do not allow a more thorough discussion of the subject, but it is hoped that what has been written, will induce others to look into the matter, and to give the benefit of their knowledge and experience.

It is one of the duties of physicians, becoming daily more and more recognized, to take the lead in questions affecting the general health and welfare of the communities in which they reside, and it should be our pride and pleasure to spread an intelligent understanding of these subjects among all who come within the sphere of our influence. Special knowledge brings with it the obligation to be faithful stewards of the talent committed to us, and we are morally responsible for the use we make of it. It should be our aim and object to influence the public mind, so as to secure the passage of wise laws for the control of sanitary matters, which could protect all equally, and also prevent *one person from keeping a focus of disease* among his more prudent neighbors.

ART. XIV.—*Meeting of the San Francisco Medical Society*, March 12th, 1872.

Minutes of the previous meeting were read and approved; some current business affairs of the Society were attended to, when Dr. Gibbons, Sr., read some notes of a case of concussion of the brain. A boy, *act.* 14, fell a distance of 20 feet, and sustained injuries to the head which were followed by vomiting, coma and the usual symptoms of concussion, rather aggravated. The patient however recovered; the doctor in conclusion read some remarks as to the prognosis of such cases in the first few hours after the injury. He thought that vomiting was not a bad prognostic sign.

Dr. J. P. Whitney then addressed the Society on one of the subjects before them at a former meeting, namely, hypertrophy of the heart, its varieties and their diagnostic signs, *ante-mortem*. He strove to account for the physical symptoms observed during life by the *post-mortem* conditions, quoting a sentence from an ancient writer, he said that reason is the harmonization of thoughts with things, and that facts could not be questioned.

Two months ago Dr. Bently presented a pathological specimen of an hypertrophied heart with adhesions to the walls of the chest and the pericardium. The case gave rise to a discussion as to the possibility of a diagnosis of pericardial adhesions during life. During this discussion he had instanced two cases in both of which he had inferred such adhesions from the fact that there was no œdema, no dropsy, but an emaciated condition and a peculiar contraction of the intercostal spaces accompanying the heart's action. In both the autopsy had verified the diagnosis. The value of the symptoms as diagnostic signs, had been commented upon and questioned by Dr. Bently in his remarks on this and other cases. He desired to defend his position and to take issue with the doctor upon certain points raised; for instance, that concentric hypertrophy is a misnomer, and does not exist.

A certain amount of blood must be propelled by the heart in a given time. If anything should interfere with the free movements of the heart, such as adhesions by organized lymph as a result of inflammation, a certain amount of energy would be wasted and this must be compensated by enlargement in the volume of the muscular tissue, and this enlargement or hypertrophy might cause an increase of the cavity of the heart, an increase in the volume of blood propelled at each systole, and naturally a decrease in the frequency of the heart's action, as was evidently the case in the cases cited by Dr. B; or the frequency of the heart's action

might be increased, accompanied by a decrease in the volume of blood propelled at each systole, and a thickening in the muscular walls at the expense of the cavity of the heart. He thought that this latter condition often did obtain, and that concentric hypertrophy did exist. He respected Dr. Bently and his reasoning as much as he respected any one, but he did not believe in worshiping heroes in physic or in anything else. In support of his reasoning, the speaker here read extracts from Herbert Mayor's Outlines of Pathology; also from Dr. Aitkin's Science and Practice of Medicine; he referred also to some statements to the contrary by Sir Thomas Watson.

He then resolved the matter into two propositions which he left with the society for discussion, viz.:

1st. The intercostal spaces, where they can be seen, may be observed to contract with the ventricular systole, when pericardial adhesions exist.

2nd. Concentric hypertrophy does exist in accordance with fixed physical causes.

Dr. Holbrook wished to take issue with the doctor as to the harmony supposed to exist between anatomical lesions and their outward signs. He said that different individuals suffering from the same primary lesion presented widely different symptoms and that after all our *post-mortem* investigations, our treatment in general cases was not governed by the supposed initial lesion, but by the clinical aspect of the case. These remarks gave rise to a lively discussion, participated in by a large number of the members, as to the value of pathological studies, and as to how far the knowledge of anatomical lesions influences the therapeutic exhibition of remedies. Mutual misrepresentation were claimed corrected, and the society harmonized on the proposition, that the scalpel and dissecting table could not be too highly estimated as a means of increasing our knowledge of and power over disease. After some further discussion on minor topics, Dr. Gibbons moved that the subject of mercury as a remedial agent, be taken up for consideration at the next meeting. Adjourned.

Meeting of April 9th, 1872.

Dr. Bently read a paper on the subject of Adherent Pericardium, its result—hypertrophy—and its diagnostic signs. There had been some discussion at former meetings on this subject, and the Doctor had investigated our current literature in order to form some conclusions. He quoted a number of authorities from which he drew the general inference that there were no positive diagnostic signs of pericardial

adhesions producing hypertrophy, and that such adhesions, when incomplete, were not even incompatible with the good health of the general organization. He thought that the weight of authorities were decidedly adverse to the idea of the existence of concentric hypertrophy. When contracted ventricles are found in *post-mortem* examination, it may generally be attributed to the mode of death, as it has been most frequently observed in beheaded persons, and the ventricle has been easily dilated with the finger. He thought no physical law had been defined necessitating such a condition, and it was not the result of disease.

The Doctor also presented some pathological specimens he had that morning taken from a case *post-mortem*, cause of death, albuminuria. Adhesions were found in the lungs, also cicatrices, apparently after absorption of tuberculous matter. This suggested the question as to whether consumption is ever followed by recovery. This case appeared rather to support the idea. The lungs were, however, in the condition known by some writers as *phthisis florida;* there was also grey hepatization and one or two abcesses. The latter generally precedes the former. A tumor was found in the mesentery. It was not an aneurism, and he did not think it was malignant. Its nature could not be determined. The kidneys were of the large white variety, the uriniferous tubes were filled by a fibrous deposit, but evidently recovery was in progress; this was confirmed by the fact, that for some time before death the albumen had disappeared from the urine. The diseased condition of the lungs, however, was sufficient cause of death.

Dr. Gibbons said that the case just spoken of had been under his care at the hospital for the past five months. The first diagnosis had been albuminuria, but he had never been able to detect albumen in the urine; he was feeble, emaciated, had attacks of diarrhœa alternating with constipation, auorexia, occasional vomiting, but no indication of organic difficulty. No positive diagnosis had been made. The patient gradually sank until his death. The tumor had appeared one month ago, and at first simulated aneurism; the pulsation was evidently caused by the abdominal aorta, and was not distinguishable when the patient was in the erect position; he had, therefore, thought it to be a mesenteric tumor, the nature of which he had not understood.

Dr. Hudson, of Stockton, who had been introduced in the early part of the evening, then arose to address the Society on the subject of Partial Inward Dislocation at the elbow joint. (The Doctor had published his opinion on the

subject, which had been replied to in the medical journals; and lately a letter from Dr. Hamilton had been published in the WESTERN LANCET, condemning his views, and we presume that Dr. H. had appeared before the Society to defend his position.—ED.) He commenced by presenting to the Society two resolutions by which he wished to open the discussion, viz.:

Resolved, 1st. That, in the judgment of this Society, the so-called Partial or Incomplete Dislocation of the elbow inwards, is none other than a complete displacement of the ulna and radius.

Resolved, 2d. That the pathology of Drs. Cooper, Gross, and Hamilton, is confused and erroneous.

To speak mildly, the presumption of the above proposition to the Society rather shocked the majority of the members; but while the resolutions were laid on the table, the Doctor was invited to continue his remarks, in order that if any thing had been discovered showing that the genius of our great masters had been misled, the Society might be instructed. He had prepared two diagrams and a model of the joint, and after a speech of nearly two hours in length Dr. Bently, replied in a few concise and convincing remarks, explaining that Dr. H.'s sweeping assertions had been prompted by a misconception of the anatomy of the elbow joint and the anatomical terms connected with the subject. This had been apparent also to a number of the members.

After a few remarks relative to the minor matters of business, the Society adjourned. †

ART. XV.—*Proceedings of the Alameda County Medical Association, Oakland, March 4th*, 1872.

Present—Dr. Van Wyck, President; Drs. Carr, Gibbons, Hanson, Kittredge, John LeConte, Jos. LeConte, Pinkerton, Sherman.

The minutes of the last meeting were read and approved. The Board of Censors having reported as qualified M. W. Fish, M.D., of Brooklyn, a graduate of Rush Medical College, 1854, and E. H. Pardee, M. D., of Oakland, a graduate of Rush Medical College, 1867, these gentlemen were on ballot unanimously elected to membership.

The committee appointed at last meeting to report upon a plan for united action by means of which the cause of science can be advanced more surely than by individual labors, submitted the following:

"The committee appointed to devise a plan for collecting "'medical statistics' and other matters of sanitary impor- "tance in relation to Alameda county, beg leave to report: "That a complete organization of a scheme for obtaining all "the data required must be a work of *time;* but as a *provisional* "plan, which may, in some measure, be carried out without "much delay, it is recommended that five committees be "appointed and constituted as follows;

"1st. *On Diseases:* including statistics of births, deaths, "ages, and the number living at those ages—Drs. Pinker- "ton, Trenor, Allen, Van Wyck, Bamford, Bolton, Coleman.

"2d. *City Hygiene*: including ventilation, sewage and "analysis of water—Drs. Sherman, Kittredge and Carr.

"3. *Meteorology:*—Drs. John LeConte, Fox and Holmes.

"4. *Topography, Drainage and Geology*—Drs. Jos. Le- "Conte, Cushing and Hanson.

"5th. *Medical Botany*—Dr. Gibbons, and others to be ap- "pointed.

"Your committee beg leave to recommend the appoint- "ment of a standing committee of the association, for the "purpose of directing the methods of investigation of the "several committees, and securing *unity* in the researches.

"It is proper to add that your committee has addressed "a circular letter to a large number of medical organiza- "tions, with a view of securing such reports of similar "researches as may be of assistance in perfecting the plan "of investigation. Professor Henry, of the Smithsonian "Institute, has likewise been addressed in relation to "furnishing a set of standard meteorogical instruments, "for observations at some station in the county somewhat "remote from Oakland.

"Respectfully submitted,

(Signed) "JOHN LECONTE,
"G. E. SHERMAN,
"C. S. KITTREDGE,
"Committee."

The report was received, approved and accepted, and the chair appointed as standing committee the gentlemen making the report.

Dr. Kittredge, appointed at last meeting, read a carefully prepared paper on "Cancrum Oris." On motion of Dr. Carr, the association unanimously requested a copy for publication.

[This paper will be found in the proper department of this number.—ED.]

Drs. Coleman and Van Zandt were appointed to read papers at the next meeting.

On motion, the association then adjourned to April 1st, at one P. M.

MEETING of April 1, 1872.

Present, Dr. Van Wyck, President; Drs. Babcock, Bamford, Cushing, Hanson, Holmes, Kittredge, Jos. Le Conte, Pinkerton, Sherman, Trenor.

The minutes of the last meeting were read and approved. Dr. George R. Bibb, of Oakland, was proposed for membership, and the nomination referred to the Board of Censors. The permanent committee on matters of Sanitary Science reported through Dr. Kittredge, recommending a change in the nomenclature tables (proposing the report of Dr. Farr, of London, to the "International Statistical Congress," 1855, and which is now in use by the Board of Health in New York), in the death reports, certificates of births, and a blank for recording the history of disease; each case to be recorded separately, transferred to the Board of Health records, and the original to be returned to the person making the report. The association unanimously adopted the proposition, and agreed to coöperate witn the city Board of Health.

Dr. Pinkerton presented a specimen of scirrhus of the liver. The patient had "for a long time" complained of indigestion. He had commenced by self-doctoring, and then gone down in the inevitable path of small pills and infinitessimal dilutions, water cure, vegetable diet, mesmerism and spiritualism, and was informed by the last revelation that his appetite was "not good, and the blood vessels were full, and he had indigestion!" He had but recently come under Dr. P.'s observation. There was a small tumor over lesser extremity of stomach, not much appetite, no vomiting, pulse quick and feeble. The patient rapidly failed, and died on 26th ult. *Autopsy.* Abdomen only opened; no adipose tissue. The entire omentum appeared absorbed. There was no fat in the body. The liver was studded with cancerous deposit, particularly in left lobe; pylorous and pancreas involved slightly; surrounding tissues hardened.

Dr. Cushing presented the heart taken from a man who had twice stabbed himself with a pocket knife, blade 2½ inches long, ¼ inch broad. One puncture entered the right, and the other the left ventricle. The pericardium and left

pleura were filled with blood. There was great insufficiency of the aortic valves, and consequent hypertrophy.

Dr. Hanson presented an aortic aneurism and hypertrophied heart, taken from a Laplander, *aet.* 60. About 18 hours before death, the man had complained of feeling something "give away inside, and could feel the fluid move about!" Autopsy exhibited a sacculated aneurism of the aorta, extending from the transverse portion, to the cœliac axis. It was strongly adherent to the pleura on all sides, and on separating the attachments, the fluid of which he had complained, was found filling the sack. Evidently the aneurism had burst when he felt the peculiar sensation. The heart was greatly enlarged, and weighed two pounds, cleared of clots. The spleen was hypertrophied to about twice its natural size, and liver atrophied.

Dr. Van Wyck presented about 15 feet of *tænia-solium*, passed by a child aged 5½ years, the inciting cause being koosso followed by black draught.

Drs. Bolton and Hanson were appointed to have papers prepared for the next meeting. Adjourned to May 6.

Art. XVI.—*American Medical Association.*

We have received from Dr. Atkinson, Permanent Secretary of the American Medical Association, a circular, giving rates of fare on the different roads throughout the States, and the price of board at the different hotels, restaurants and boarding houses in Philadelphia, for the delegates to the 23d annual meeting, which will be held in Horticultural Hall, on Broad street, commencing at 11 a. m., on Tuesday, May 7. The Central Pacific offer tickets at half local rates; Union Pacific return free, if 1st class tickets are bought, and an acknowledgment taken from agent; Pittsburg, Fort Wayne & Chicago, issue excursion tickets, as do the Pennsylvania Central, Baltimore & Ohio, and Lake Shore & Michigan Southern, if forty tickets are taken. "All who desire to avail themselves of the above rates, must send to the Secretary their full names and the names of *all* the railroads over which they must travel in coming to the session, with a stamp for postage."

(Signed) Wm. B. Atkinson, M.D.,
1400 Pine St., Philadelphia.

ART. XVII.—*R. R. Fares and the Doctors.*

In our last we published a letter from Dr. Logan, giving the result of negotiations with the superintendents of different roads in regard to the delegates to the National Association. We now give an extract from a recent letter from the Doctor:

"April 13, 1872.

"*Messrs. Editors:*—I regret to have to ask you to give notice, that Mr. Waite, agent for the Chicago and Rock Island R. R., has withdrawn his offer to furnish delegates to the American Medical Association with tickets at one half local rates. It seems that the managers of all three of the routes from Omaha to Chicago, have combined against the doctors —wherefore remains to be found out. * * * * * ."

ART. XVII.—*Quarterly Report from the State Insane Asylum at Stockton.* By G. A. SHURTLEFF, M. D., Superintendent.

The following is a summary statement of the number of patients in the Insane Asylum of the State of California, on the 1st day of January, 1872; the number admitted, discharged, died and eloped during the during the quarter ending March 31st, 1872.

	Males.	Fem'ls.	Total.
Number of patients January 1st, 1872	785	294	1079
" admitted to April 1st, 1872	80	38	118
" of patients under treatment	865	332	1197
" discharged recovered	34	10	44
" discharged improved	2	3	5
" died	44	13	57
" eloped	1	.....	1
Discharged, died and eloped	81	26	107
No. of patients remaining April 1st, 1872	784	306	1090

Art. XIX.—*Book Notice.*

Wunderlich's Medical Thermometry, abridged by Edward Seguin, M.D., *pp.* 278. N. Y., W. Wood & Co.; S. F., A. L. Bancroft & Co.

A little more than one half of this volume is an abridgment of Dr. W. B. Woodman's Translation for the *New Sydenham Society;* the remainder, contains "Suggestions on Thermometry," by Dr. Seguin, of New York.

The book is invaluable to any one desirous of keeping well-informed as to the progress of the science of medicine by means of positive diagnosis; it is abundantly illustrated with diagrams, conveying to the mind a better idea of the ranges of temperature in health or disease than could be conveyed by figures; it gives the history of the discovery of the thermometer as a means of both diagnosis and prognosis, and has particular descriptions of thirty-two different diseases, in each of which the range of the instrument is perfectly determined, and affords as certain knowledge as may be obtained by a stethescope in pulmonary or cardiac complaints. In our limited space we cannot do justice to the work. To give an idea of the amount of labor and research required, and the value of the information received, we quote from the Professor. "Ever since October, 1851, I myself, * * * * * * have introduced the use of the thermometer in my clinic. The number of cases thus studied amounts to nearly 25,000, and the number of single observations to some millions. When the number of the latter reached 100,000, they appeared to me capable of serving as a basis for the determination of this most decisive question of pathology: Do certain diseases, in their progress, obey fixed laws or rules, and can this be determined and displayed by the course of the temperature? The affirmative answer was first afforded by the thermometric observation of typhoid fever, and by the occurrence of a short epidemic of typhus." He adds: "A medical attendant who undertakes to decide a case of fever or febrile disease without knowing the facts of thermometry, is like a blind man trying to find his way in an unknown locality."

In our opinion, the abridgement would have been far more valuable had it contained more of Wunderlich and less of Seguin. The latter has published, according to his own statement, a large number of monographs, and surely he could have added his "Suggestions" to the list, on its own merits, without incurring the suspicion which must arise in the present instance, that the name of Wunderlich was necessary in order to make known that of Seguin.

MONTHLY REPORT OF DEATHS IN THE CITY OF SAN FRAN-

By C. M. BATES, M.D., Health Officer. *No. of Deaths corresponding*

CAUSE OF DEATH.	Total	AGES.																SEX.	
		Under 1 year	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	Over 100	Unknown	Male	Female
I. ZYMOTIC.																			
Scarlatina	3			1	1	1												1	2
Whooping Cough	3	2	1															3	
Fever, Enteric or Typhoid	7					1		1	1	4								7	
Fever Intermittent	6	1						1		2	2							6	
Erysipelas	3	1	1								1							3	
Dysentery—Chronic	2							1		1								1	1
Pyæmia	4							1	1	2								2	2
Other diseases of this class	8	2	1	2				2					1					4	4
II. CONSTITUTIONAL.																			
Rheumatism	1									1									1
Cancer Undefined	2							1	1									2	
Cancer of Uterus	1								1										1
Cancer of Bowels	1										1								1
III. TUBERCULAR.																			
Phthisis Pulmonalis	53		1		1		2	16	13	17	2	1						45	8
Other diseases of this class	2	2																2	
IV. NERVOUS SYSTEM.																			
Congestion of Brain	2		1				1											2	
Meningitis	8	4	3								1							3	5
Cerebritis	3	3																1	2
Apoplexy	6									4	2							4	2
Paralysis—general	1									1									1
Effusion on Brain	2										1	1						2	
Other diseases of this class	15	9	3	1				1				1						9	6
V. CIRCULATORY SYSTEM.																			
Aneurism of the Aorta	2							1	1									1	1
Heart, Dilitation of	1								1									1	
Hypertrophy of the Heart	1							1										1	
Dropsy of Heart	2									2								2	
Dropsy	2										1	1						1	1
Heart Disease, undefined	9					1		1		1	3	1	2					6	3
Other diseases of this class	4	1			1			1	1									2	2
VI. RESPIRATORY SYSTEM.																			
Bronchitis—Acute	5	2	2	1														3	2
Pleurisy	1										1							1	
Congestion of the Lungs	3	2	1															3	
Pneumonia	19	9	1	1				1	1	6								14	5
Asthma	2										2							1	1
Hæmoptysis	1										1							1	
VII. DIGESTIVE SYSTEM.																			
Gastritis	3	1				1	1											1	2
Enteritis	3	1	1	1															3
Peritonitis	5	1	1					1			1	1						1	4
Hepatitis	1										1							1	
Jaundice	2								1	1								1	1
Intussusception	1	1																1	
VIII. URINARY SYSTEM.																			
Bright's Disease	4								2	1		1						4	
Other diseases of this class	3							1					1					2	1
IX. OLD AGE	2												2					1	1
X. NUTRITION.																			
Atrophy	3	2								1								1	2
Inanition	11	11																6	5
Debility General	3	1									2							1	2
XI. ACCIDENTAL	6		1			1			2	2								6	
XII. PREMATURE BIRTH	2	2																2	
XIII. SUICIDE	4							2	1	1								2	2
XIV. SYPHILIS	2						1			1									2
XV. CAUSES NOT SPECIFIED OR ILL DEFINED	16	3			1		1	4	4	1	2							11	5
TOTALS	256	61	18	7	4	5	6	37	31	49	25	7	6					175	81
XVI. STILL BORN																		16	15
XVII. BIRTHS REPORTED																		26	22

CISCO, CALIFORNIA, FOR THE MONTH OF MARCH, 1872.

Month of 1866, 210; 1867, 220; 1868, 195; 1869, 299; 1870, 255; 1871, 227.

RACE.			WARD.															NATIVITIES.			
Caucasian	Mongolian	African	1st Ward	2d Ward	3d Ward	4th Ward	5th Ward	6th Ward	7th Ward	8th Ward	9th Ward	10th Ward	11th Ward	12th Ward	Public Institutions	Casualties	Suicides	F'r'gnCo'nr's	Atlantic U. S.	Pacific U. S.	Unascertained
3				1								1		1						3	
3										1	1	1								3	
5	1	1	2			1		1					1	1	1			4	3		
	6					3		3										5		1	
3				1					1				1					1	1	1	
1	1							1							1			1	1		
4													2		2			2	2		
8				1		1			1	1	1	1		1	1			2	1	5	
1				1														1			
2			1			1												1	1		
1																		1			
1										1								1			
37	16		1	3		10		10	2	5	2	5	6		9			37	14	2	
2				1									1							2	
1	1									1				1				1		1	
8			1					1	1			2	2	1				1		7	
3				1							1			1						3	
6			1	1	1					1			1		1			6			
1									1									1			
2															2			2			
15			1	2	1			1	2	1		4	1	1	1			2	1	12	
2								1					1					1	1		
1									1										1		
1										1								1			
2			1												1			1	1		
2				1						1								2			
9			1	2						2	1	1			2			5	4		
4				1					1			1			1			2		2	
5			3					1	1											5	
	1					1												1			
3						1						2								3	
19			2	1	1	2	1		1		1	2	2	4	2			6	3	10	
2			1									1						2			
1										1								1			
3						1						1			1			1		2	
3			2							1										3	
5													2		3			3		2	
1						1												1			
1	1					1					1							2			
1												1								1	
4					1					1			1		1			3	1		
3					1								1		1			3			
2				1						1								1	1		
3												1		1	1			1		2	
11			1							1					9					11	
3												2			1			2		1	
6																6		4		2	
2						1						1								2	
4																	4	2	2		
	2					1									2			2			
5	11				1	9		3		1		1			1			12		4	
215	40	1	18	18	6	34	1	22	12	21	8	28	22	12	44	6	4	128	38	90	
31																					

REMARKS.—The mortality for March is a slight increase over the month of February, and a decided increase over the corresponding month of last year, as will be observed in the caption of the report. This is, however, no greater than the augmentation in the population of our city would justify, for we cannot reasonably expect such an unprecedented sanitary condition to continue as we have enjoyed for the past few months. The cold wind we have had during the last month must of necessity have a decided effect upon all feeble constitution, and more especially upon children. We called attention to the mortality of children in our last report, thinking (as we still do) that the mortality was unnecessarily large, but we have to chronicle a still greater increase, viz: 48 under one year of age for February, where as for March we have 61 of that age. The mortality from the class of Zymotic and tubercular diseases has been slightly augmented. Nothing further worthy of note excepting the singular circumstance that just one half the entire mortality of this month were foreign, the other half native-born persons.

U of M

RHINOPLASTIC OPERATION.

Photographed. See page 257.

[illegible]'S LANCET:

[illegible]

[illegible]

[illegible] by [illegible]

[illegible]

[illegible]

[

THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR MAY, 1872

Surgery.

Art. I.—*Rhinoplastic Operation.* By H. H. Toland, M.D., of San Francisco.

John Krimmel was admitted into the County Hospital, September 8th, 1870, in the condition represented by the photograph. There was no evidence that the difficulty resulted from syphilis, and being delicate, the ulceration by which the nasal organ was destroyed was regarded as scrofulous. Consequently a generous diet, combined with tonics, was prescribed until his general health was considerably improved, which treatment would have been continued longer before the operation was performed if he had not presented evidences of mental derangement—which I attributed to the distress produced by the loss of so important and prominent an organ.

The skin covering the frontal bone was exceedingly thin, which rendered the result much more uncertain.

The operation was performed in the usual manner. The integument taken from the forehead was secured by the interrupted silver sutures, which were allowed to remain ten days, so that should adhesion by the first intention fail

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The operation was performed in the usual manner. The integument taken from the forehead was secured by the interrupted silver sutures, which were allowed to remain ten days, so that should adhesion by the first intention fail

to take place, it would occur by granulation. The wound on the forehead was closed and the edges held in opposition, except the superior portion by the interrupted silver sutures. At the expiration of seven days, instead of dividing the attachment of the transplanted portion of integument, it was adjusted to what remained of the superior part of the nose, adhesion by the first intention took place and the circulation was thereby greatly increased. After this attachment was formed, the transplanted portion being still thin and shapeless, I determined to give it additional support by connecting the sides with flaps raised from the face, which, when accomplished, improved the prospect of success very materially. The nose was gradually brought into a proper shape by the use of sections of an elastic catheter covered with oiled lint and secured by adhesion plaster. If the ordinary operation had been relied upon, it would have been a failure, and the opening would have been simply covered with a portion of healthy integument, entirely unlike the original organ.

In this operation the attachment or pedicle should not be stretched so as to produce strangulation. At the expiration of an hour after the incisions have all been made, the blood should be carefully removed from the entire surface of the parts designed to be approximated, and they should be held in contact by the interrupted silver suture, with occasionally a fine silk ligature, to effect a more perfect adaptation of the parts. The latter should be removed on the third or fourth day, and the former not for eight or ten days, unless they cease to be useful. To prevent a failure in such cases, drainage must be secured, which can be accomplished by the application of simple cerate, the water dressing, or both; sometimes it is necessary to apply simple cerate over the wound, and the warm water dressing externally, to maintain the heat and increase the circulation of the part. Should the escape of the bloody serum, which is found by all wounded surfaces, be prevented, it accumulates between the surfaces, which renders union by the first intention impossible.

When the nose is only partially destroyed, the portion of

skin necessary to supply the deficiency may be taken either from the side of the face or forehead as may be most convenient, and the pattern being cut of pasteboard, leather or blotting paper, should be placed upon the part selected and the size and shape marked with an ordinary pen and ink, the trace of which, when dry, can be easily followed. Care should be taken to avoid both the cellular tissue and periosteum, for the removal of the latter would cause an enfoliation of the denuded bone, and prove a source of annoyance for several months. In cases of deformity, resulting from destruction of the eyelids, either partial or complete, the side of the forehead or face will be found equally convenient, and in extropium of either or both lids, the same locality may be selected, and in consequence of the result, it is one of the most important plastic operations that has ever been performed, and one that never fails when properly executed. Sometimes the transplanted portion remains thickened for a considerable time; in such cases the projecting portion can be removed and the wound healed by the ordinary treatment.

Institutes and Practice of Medicine.

ART. II.—*Neurological Studies.* By DR. J. P. WHITNEY.

LESSON FIRST.

[Continued from page 136.]

The acquisition of knowledge is progressive, one discovery has prepared the way for another, hypotheses very far from true have often served valuable stepping-stones to important discoveries and useful aids in demonstrating the laws of nature. Black's theory of latent heat (though now

demonstrably unsound) enabled Watt to demonstrate the laws, and apply the power of steam quite as directly as Oersted's discovery that a magnetic needle would invariably assume a right angle to a current of voltaic electricity made the demonstration by Wheatstone, and the application by Morse of the electro-magnetic telegraph a possibility. Thus nearly every important scientific demonstration, when traced back in the line of its evolution, is found to be largely indebted to the hypothetical assumptions, or imperfect demonstrations which have preceded it. Astrology contributed largely to the evolution of Astronomy; and Alchemy furnished many of the fundamental facts and experiments upon which Chemistry is built.

Many of the actions of organized beings are accomplished by forces identical with those operating in the inorganic world. Food is reduced principally by mechanical forces, and digested by those principally chemical. Endosmose nearly accomplishes its absorption into the circulating fluids. The circulation is carried on mostly by hydraulic agencies which preside over the movements of non-vital fluids. Muscular movements conform largely to mechanical laws; and even the crowning functions of sensation and volition, in the reception of the most subtle impressions and the transmission of the highest behests, are obedient to laws nearly identical with those which govern the phenomena of simple voltaic conduction. After all however, which is explained by recognized mechanical, chemical and electrical laws, there yet remain phenomena which neither one nor all of these can fully account for, and which in the present state of physiological science are only explained by the recognition of a "higher law," a superadded "germinal" or initiative principle of life, a "vital force." The properties peculiar to substances manifesting this force are called vital properties, and their peculiar actions vital actions. Contractile tissue exercising its force produces contraction; sensitive tissue exercising its function results in sensation. Proof of the existence of any property or force is only obtained by observation of its exercise, responsive to appropriate impressions. Thus are proofs obtained of elasticity and con-

tractibility, of sensibility and motility. Gravitation is an active energy universally operative, tending to bring masses of matter together with a force directly proportioned to their masses, and inversely to the square of their distances asunder. This constitutes the law of gravitation. Electricity is a mode of force capable of causing peculiar kinds of matter to manifest attraction, repulsion or polarity, without appreciably altering the physical condition of such substances. No difference can be discerned between a charged steel magnet and a similar piece of steel destitute of magnetism, until placed in circumstances where the magnetized one can exert its force upon appropriate materials, causing them to manifest new tendencies and peculiar relations toward surrounding objects. The conditions under which the electrical phenomena of attraction and repulsion are induced, or polarity manifested, and the study of the laws which govern them constitute electrical science. Affinity is a mode of force exerted between material atoms, the peculiar affinities constituting the attributes of different chemical elements. Each element tends to combine with other elements in certain definite ratios, observing a "law of equivalents," upon which modern chemistry predicates its strongest claims as a science. Gravitation, magnetism and affinity, may with propriety, be regarded as different exhibitions or modes of force, according to whether exerted among large masses, smaller portions, or ultimate atoms of matter. Modern science counts among its acknowledged truths, not only the indestructibility of matter, but of force also, and requires of the philosopher that he give strict account of both, either in kind or equivalent. All changes in living organisms arise from forces acting from without, guided by a force previously embodied in a germ to the production of tissues and organs through the chemical changes wrought in the elementary materials by these incidental forces.

Chemical changes taking place at the points of nutrition, secretion and excretion, I regard as the source of all the higher forces evolved by every animated organism; a vitalized compound of Carbon, Hydrogen, Oxygen, Nitrogen, Sulphur and Phosphorus, such as grey Neurine, has the

property of collecting, conducting and transforming, or correlating these chemical or chemico-vital into all the modes of neural or neuro-vital force.

As the seed in plants, and the egg or ovum in animals, furnish convenient points from which to start in tracing the process of individual evolution, I will not waste time in the discussion of final causes as to which was first, the seed or the plant, the "Owl or the egg!" but assume that the seed was before the individual plant, and the egg before the individual owl.

The seed contains plastic matter endowed with vital force and tendency, in a latent condition, awaiting the proper soil and temperature, to allow it to begin the active processes of vegetal evolution. The egg contains also the latent force and tendency necessary, when temperature and time are properly conditioned, not only to evolve the vertebrate animal as far as purely vegetal processes will carry its evolution, but also to the completion of its type of individual being, capable of executing all the functions of its progenitor of the same sex.

The physiologist, as he studies the structure and functions of living beings, striving to rise, through observation of the phenomena of matter and force, at the laws which govern their reciprocal relations, starting with a vital principal in the seed or the egg, finds it requisite to the understanding of the first steps of evolution that some theory of matter and its motions be at least hypothetically adopted. Thus I assume the elements of nature are matter and force, or elementary materials endowed with elementary energies. Of the sixty-four forms of elementary matter, physiology deals with only about one fourth; and of the elementary forces, it studies at least three distinct varieties or modes, Chemical, Vital and Neural; the laws of which are most profitably studied in the order stated. The chemical forces are properties belonging essentially to elementary matter, which are capable of compelling it to take definite forms, either solid, liquid or gaseous; and also to enter into definite combinations. Under controlling germinal influence, chemical, correlate into vital forces capable of producing

organic forms out of peculiar combinations of elementary materials, by assimilating and appropriating them for structural nutrition. The chemical and vital forces employed in organic structural nutrition, are converted by the agency of neurine into the various neural forces, thus bringing matter into intimate organic relations with mind. The laws which govern the reciprocal relations between forms of matter and modes of force, are to be studied as rules varying only as the relations vary among the elements of different physiological problems.

[TO BE CONTINUED.]

ART. III.—*Miasmatic Diseases of California.* By J. CAMPBELL SHORB, M. D., San Francisco.

(Continued from Page 206.)

The condition of stupor continues until the fever, which came on simultaneously with it, in some measure abates, when it generally disappears and, from all we can learn, it is a phenomenon almost exclusively associated with the first paroxysm, and if it reappear in the second paroxysm, it presents itself shorn of all its original violence, scarcely ever exciting any alarm or calling for active remedial measures. There is a state of stupor connected with some of the severer forms of Panama fever, which will be noticed in due time, and which is generally the prelude to more formidable symptoms—rapid sinking of the powers of life, and ultimate dissolution. Both probably spring from the same cause; in one instance the energies of resistance of the system are able to check the destructive operations of a poison, which, in the other instance, is concentrated virulence, so impresses the centres of life as to render reaction and recovery impossible. Both may be the direct results of the influence of the poison on innervation. There are other ways, however, of explaining these

phenomena, which, though hypothetical, are founded upon many reasonable considerations. The condition of the system throughout must be carefully considered during the period which immediately precedes the occurrence of the stupor. The rigor is at its height, the blood leaves the surface of the body and concentrates in large quantities in the internal organism. Congestion results; and in obedience to the physiological law that secretion is in inverse proportion to the fullness of the blood vessels, we have the very grave accident of complete arrest of secretion. The liver, the kidneys, the spleen, the glands, scattered profusely throughout the intestinal tract surcharged with blood, cease to elaborate their appropriate secretions, and matters remain in the blood which seriously compromise the integrity of the vital fluids, poison the brain, and which, if retained beyond a certain period, ultimately destroy life. The aggregate influence of the retention of these morbid matters, acting upon the great nervous centres, may have the effect of producing the stupor of which we have spoken.

The exhaustion following the first paroxysm of Mountain Fever is very great—much greater in fact than that ordinarily associated with very violent attacks of pure intermittent fever. The patient is glad to lie abed, and far from feeling any temptation to leave his room—is averse to the slightest motion, and keeps in the same position for many hours together. Following close on the termination of the first paroxysm there is observed a very marked change in the blood. The ruddiest in complexion and the strongest physically are noticed growing pale almost with the suddenness with which terror or passion sometimes blanches the countenance, and this pallor is very slow to leave, continuing sometimes long after the severe symptoms have all disappeared, still lingering, whether the original attack has been long or short, severe or insignificant. We hold that this peculiar change, wrought in the blood, flows from a modification of the cell action of the spleen set on foot by congestion of its parenchymatous substance, or springing from some peculiar action of the miasmatic poison upon the cells of the organ. We believe that the science of physiology has demonstrated that the colorless corpuscle, elaborated by the spleen, by progressive metamorphosis gradually develop into the typical red cells of perfectly matured blood. It has further demonstrated that these perfected cells are extremely short lived, living through only ten or twelve tours of the system; and taking the mean of many experiments made with a view of establish-

ing the amount of time necessary for the blood to complete its journey through the system, we know this is accomplished in less than one minute; the life then of each red blood cell is comprised in ten or twelve minutes; hence the necessity for that organ to be kept in a perfectly healthy state, to which is entrusted the rapid renewal of those cells, which perish so quickly, yet upon which all the wonderful phenomena of secretion, absorption and nutrition, of life, depend. The slightest modification in the cell action of the spleen may have the effect of arresting the elaboration of new cells; the old ones die, and their *hæmatin*, subjected to the action of the liver, passes into new chemical combinations, thus the coloring matter of the blood, upon which the ruddy hue of health depends, is rapidly and almost entirely destroyed. We know that in nearly all fevers there is a tendency to enlargement of the spleen, mesenteric and lymphatic glands. This tendency is well pronounced in the different typhoid processes, but in no morbid condition does it appear in so marked a manner as in the disorders resulting from the operation in the system of paludal poison. Indeed, enlargement of the spleen has come to be regarded in the light of an integral portion of the mass of morbid changes found in connection with an attack of malarious disease. We cannot admit an enlargement without admitting at the same time a change in function from a healthy standard, and a modification in the cell action of the part, the importance of which cannot be overrated. Viewing, then, the great blood-making organ, the spleen, as the first grand objective of an attack of malarious disease—keeping well in mind the changes which ensue from its operation there—it is an easy matter to understand and explain the pallor which follows so closely on the heels of an attack of this fever. Why the pallor in Mountain Fever is more rapidly developed and more persistently maintained than is the case with other forms of malarious disorders, we are at a loss to imagine. In long continued intermittent disease, no matter where or how originating, paleness comes on at last, and everyone is familiar with the description which travelers have given us of aguish countries, of those, for instance, who live the year round in the Campagna of Rome, or in certain localities in India.

Bishop Heber, for example, in describing the surroundings of that malarious tract in India, which borders on the Rochilcund country and stretches toward the Himalaya Mountains, tells us that the whole skirt or margin of the mountains is surrounded by a thick forest with a marshy soil, and an atmosphere, during two thirds of the year,

more pestilential than the Sunderbunds or the Grotto del Cane. He describes the natives of the villages through which he passed as singularly wretched beings, ugly and miserable in the extreme, with large heads and particularly prominent ears, unsightly noses, tumid bellies, slender limbs, and a remarkable sallowness of complexion.

These, and illustrations of the same truth which may be observed at the present day in many localities of our own country, are results of a long continued operation of the paludal poison, and are so common that they elicit no comment. But here we have a fever which in an incredibly short space of time develops those phenomena which under other circumstances, with the same morbid process, are of very slow evolution, and which indeed, in some cases, even where violent diseases is present, are never seen.

Paleness or pallor, is not a disease, it is merely a symptom, and when of momentary duration or the associate of a transient attack of nausea, or of mental disquietude flowing from anger, terror, or the reception of grievous intelligence, it cannot be regarded as a sign of serious import; but when in the contemplation of its persistency our thoughts are carried from the mere consideration of symptoms to dwell on the very alarming and often irremediable condition of which the pallor is the superficial indication—on the construction of the blood which is broken up, almost destroyed—on the fact that its fountain head is poisoned, dried up, and incapable of restoration—then indeed pallor becomes fraught with terrible significance, presaging trouble which all the mighty machinery of medicine often fails to check or remove.

In the production of this pallor the spleen must not bo regarded as the only organ which, altered by disease, is capable of developing the phenomena. Reference has already been made to the fact that in the typhoid processes and malarious diseases the lymphatic glands become affected. They become enlarged, and their activity is vastly increased.

We know that at the present day, physiology, throwing aside all former theories and ideas in reference to the reproduction of blood by division or partition of already existing cells, teaches that in the blood of an adult all the morphological elements, whatever may be their nature, are at present considered to be derived from sources external to blood.

We have spoken of the spleen as one of these sources; we have yet to mention the lymphatic glands; elaborating, as they undoubtedly do, a fluid which appears "in double

trust," first to convey certain substances into the blood, which come from the tissues, and at the same time to carry with it the corpuscular elements, out of which the blood cells continually recruit their numbers.

Pathology has revealed the fact that the whole lymphatic system suffers in malarious disease. The glands become profoundly disturbed—irritated; there is an afflux of blood to the parts. We do not believe that the irritation runs over into inflammation, but certain it is there is a swelling and enlargement of the glandular apparatus and the introduction into the blood of a large number of colorless cells, or lymph corpuscles. The ratio which in health obtains between the red and colorless corpuscles of the blood is thus destroyed, and out of this disturbance comes the pallor of which we have been speaking.

It is no argument against the position we have taken, to contend that if, under irritation of the lymphatic glandular system, a large number of colorless cells are poured into the current of the circulation, they would maintain the integrity and uniformity of the blood. If these cells were the products of perfectly healthy glands, we would admit at once the force of the objection; but, developed under the unfavorable auspices of an irritation set on foot by the presence of a poison, these semi-vitalized cells reach the blood, imperfectly elaborated, and are slow to yield themselves up to the action of the vital principle, which, through progressive metamorphoses, enables them to reach perfection and maturity in the red cell. Indeed, in many cases, we believe these colorless cells, intoxicated with the poison derived from the parent system, are incapable of higher transformation, and go reeling through the circulation, useless, inert and unproductive. While these colorless cells, therefore, by inherent weakness are prevented from reaching a higher state of organization, while they are rapidly accumulating in the blood, the red cells are perishing with old age, carrying out of the system the coloring matter which, in their prime, they possessed, and in the disappearance of which may be found an explanation of the pallor which attends sooner or later all forms of malarious disease.

We have written much more on this subject than we originally intended, but the question of this great change wrought in the blood, through the agency of paludal poison, is one which would have to be considered at length in some portion of a treatise on miasmatic disease, and the present seemed a fitting occasion for its discussion and amplifica-

tion. It belongs to no one phase of miasmatic disorder, but runs through the whole family of diseases which belong to this order, and probably would not have been mentioned here had not its inexplicable suddenness in connection with Mountain Fever forced itself upon our consideration.

The disease is one which, so far as our experience goes and from all we can learn, belongs to the mature period of life. No cases in children have been reported. It may happen as the localities become more populous in which this disease is endemic, that children will be attacked also. These places, up to the present period in the history of California, are the haunts of miners and other adventurous spirits, or are visited by travelers, either from curiosity or for the purposes of investment, and are not the homes of families or communities. We are inclined to believe that the advent of women and children, the introduction of families into these wild mountain settlements, will not materially add to the number of cases of Mountain Fever. Indeed, the disease may decrease in proportion as the population increases. The presence of women, in more senses than one, exercises a salutary influence. Homes are provided for men who before were exposed to all the inclemencies of weather; better habits grow up in virtue of her presence; intemperance, the fruitful source of physical degeneration and disease, becomes less; men learn under such circumstances to pay more attention to the necessity of being well clothed; and, having their food prepared by skillful hands, served at judicious intervals, their nutrition is more persistently and uniformly maintained, and uninterrupted health results. Besides these considerations, we know that men think more of their health when they have their wives and children to support than when they are alone; they grow anxious to remove the existing cause of disease for fear their families may suffer; the medical policy of their surrounding is carefully attended to, and a very unhealthy site may, in this way, in a short space of time be entirely reclaimed, and sickness will almost entirely disappear.

More than this, as the population of a place increases, better medical talent is invited there, and diseases which before baffled such skill as was presented to them, now yield readily to judicious and scientific treatment. The sensible practitioner becomes, too, the health officer of his little settlement, points out the sources of disease, and puts into execution such measures as will end in their removal. He teaches men how to live, that sickness may be kept

away; he selects sites for dwellings; he analyzes the waters used for drinking; points out such as contain poisonous matters, and such as are perfectly pure; and in a thousand ways becomes the benefactor of the place of his adoption, driving out disease and causing health to reign in its stead.

[TO BE CONTINUED.]

ART. IV.—*Nitr-omuriatic Acid as an Hepatic Stimulant.* By J. H. KIDDER, M. D., Passed Assistant-Surgeon, U. S. Navy.

In the earlier part of the war, I accompanied a "contract surgeon," in the Sea Islands of South Carolina, on one of his daily visits to the contrabands scattered about the old deserted plantations. One of his patients was a thin negro, with an enormously distended abdomen, reminding one of the cook who comes in during the last act of the pantomime to be "popped" by Harlequin. "I've tapped the fellow five times," said the Doctor, "and he seems to me to fill up faster than ever." "Can't you cure him, in any way?" said I. "Sir," replied the Doctor, "a man who has once been tapped has his death-warrant signed." This conviction of the contract surgeon is very prevalent, even within our profession.

Inspector-General Martin of the British army, however, thinks that ascites, or at least that form of it dependent upon cirrhosis of the liver, can be entirely and permanently relieved, and the condition of the liver greatly improved, by the use of nitro-muriatic acid, applied systematically. He bases his opinion upon a very extended experience during a long service in India, the results of which are to be found in the *Lancet* for April, 1866. The use of nitro-muriatic acid as a liver stimulant is, to be sure, no new

thing, having often been tried and found wanting in various emergencies; but Inspector-General Martin believes that the fault lies not in the remedy, but in the mode of its application; and he carefully prescribes the method which, in his hands, has proved so successful. I regret that I must quote from imperfect notes, and do so under correction.

The acid should always be made extemporaneously by adding to five parts, by volume, of strong hydrochloric acid, three parts of nitric. The additions must be made gradually, shaking the bottle well each time. After the acids have been well mixed, the bottle or jar should be left unstopped for twenty-four hours before use. Three (3) fluid-drachms of this acid, diluted with one pint of water form a lotion, which is to be applied over the region of the liver twice a day, with *brisk friction*, while at the same time the feet are immersed in a bath of the same. The hands of the attendants making the application should be protected by oiled silk gloves, else, as stated by Inspector Martin and verified by my own experience, bilious diarrhœa will result to them, from absorption of the acid through the palms of the hands. If the practitioner please, he may give the acid internally, in the usual doses, but I have found its administration in this manner not effective, and very likely to disturb the already vitiated processes of digestion.

(The theory of this method of medication appears to be that, since the usual road of remedies, the portal vein, is effectually blocked up by disease; recourse must be had to absorption into the general circulation, with the expectation of reaching the liver through the medium of the hepatic artery, its proper source of nutrition.)

Applied in this manner steadily and perseveringly, Dr. Martin claims that the obstruction to the portal circulation will be so far removed as to prevent entirely the recurrence of ascites, and to secure to the patient a degree of health and comfort not otherwise to be obtained.

I have met with but three cases of the disease, all of which have been treated in the manner described, and which are here presented to the consideration of the profession:

CASE 1. *Chronic Cirrhosis of the Liver, with enlargement of the Spleen—Partial Recovery.* John C. M.—Beneficiary, *æt.* 48, was admitted into the U. S. N. Asylum Hospital, at Philadelphia, Aug. 25th, 1866, for ascites and obstinate diarrhœa. The patient is a tall and finely-formed man, although considerably emaciated in consequence of his disease. He states that he first noticed enlargement of his abdomen about ten weeks ago, but that the diarrhœa has been troublesome for as many months; has been, by his own story, a hard drinker in times past, but denies recent indulgence; has been treated for diarrhœa, from time to time during the past month. At this date he presents marked emaciation and considerable weakness; skin cool and moist; pulse normal; tongue red, corrugated and clean; abdomen largely distended with fluid as discovered by succussion; percussion gives tympanitic resonance over small intestine, the patient lying on his back; liver much diminished in volume, not extending below the margin of the thorax; spleen enormously enlarged, extending from the lower margin of the seventh rib to the crest of the ilium, and from the external border of the rectus muscle until lost, posteriorly, beneath the dorsal muscle, the patient standing erect; heart's impulse feeble, but otherwise normal; urine strongly acid, sp. gr. 1024; no albumen; no biliverdin; urates abundant; phosphates in excess; color dark and smoky.

Diagnosis. Cirrhosis of the liver and consequent ascites, with enlargement of the spleen due to obstruction of the portal venous system. The immense size and induration of the spleen renders it probable that engorgement has been followed by subacute inflammation of the substance of that organ with an interstitial deposit of lymph. *Ordered,* opium and camphor in pills, one after each stool; extra diet. Aug. 29th. Patient has taken tonics and stimulants, with treatment directed to the checking of diarrhœa; suffers much from accumulation of gas after eating, with urgent dyspnœa; bowels loose; urine scant and highly colored; fluid in abdomen increasing; asthenia very marked; stools clay-colored and offensive. *Ordered,* infusion of juniper with bitartrate of potassa. Aug. 31st. Anus found to be prolapsed; tormina and tenesums cause great suffering; fluid in abdomen increasing. Enemata of starch and laudanum. Diuretics have been continued, and flow of urine has greatly increased. Continue tonics and stimulants. *Ordered,* ℞. Acid. Nitromuriat. dil., *f*ʒjss; Aq. font., *f*℥iv; Sacch. Alb., ʒij; *M.* S. tablespoonful every two hours. Also, ℞. Acid. Nitromuriatic dil., *f*℥ss; Aq. font. Oiij; *M.* S. use twice daily as footbath, at the same time sponging

hepatic region. Sept. 9th. The application of nitro-muriatic acid was discontinued, no good effect having followed its use, or indeed that of any other remedy. Abdomen has steadily continued to enlarge and the patient suffers greatly from enlargement of hæmorrhoidal veins consequent upon portal obstruction. Nitrate of silver applied locally has temporarily relieved the prolapse of the rectum. Castor oil, diuretics, opiate enemata and injections containing balsam copaiba have proved only effective for the time. Abdomen continues to enlarge and emaciation progresses, with great suffering from the evolution of gas within the intestine. Sept. 17th. Treatment has consisted in "ringing the changes" upon the various cathartics, carminatives and diuretics, of which the details may be profitably omitted. It is not probable that any remedy can be efficiently absorbed until, by evacuation of the abdomen, the heavy pressure now brought to bear upon the intestinal tract has been relieved. Oct. 6th. Inspector General Martin's mode of applying nitro-muriatic acid was adopted, as follows: ℞. Acid. Nitro-muriatic, *f*ʒiij; Aq. Oj. *M.* S. apply to region of liver and spleen, with strong friction, twice daily; soaking the feet at the same time in a bath of the same. Diarrhœa has given place to obstinate constipation. Oct. 8th. Abdomen continues to enlarge, but bowels are opened daily without a cathartic. Oct. 9th. Numerous yellow, bilious stools; great relief to hœmorrhoidal distension; abdomen remains tense. Oct. 11th. Dyspnœa from pressure upon the diaphragm became so urgent to-day that the patient was tapped; three gallons and one pint of rather dark-colored fluid were drawn off. *Ordered,* to continue foot baths. Oct. 13th. Patient very comfortable; bilious diarrhœa so urgent that opiate pills have been ordered; appetite good; no pain. *Ordered,* as a diuretic: Potass. Acetatis, ʒij; Spts. Aeth. Nitros., *f*℥ss; Infus. Eupatorii, *f*℥xij; *M.* S. wine-glassful three times a day. Oct. 20th. Patient is gaining strength rapidly; profuse diuresis; bowels loose, but easily controlled; very little fluid in the abdomen. Continue nitro-muriatic acid and diuretic.

Jan. 26th, '67. Patient has continued to improve, with no other treatment than daily application of the nitro-muriatic acid lotion, and constant, moderate diuresis, maintained by the alternation of infusion of juniper with infusion of eupatorium. The condition of his bowels, diet and clothing have been carefully regulated. For a month past he has daily taken long walks in the open air, and his general health is excellent. Returned to the asylum to-day, having been 154 days under treatment, during 112 of which

his improvement has been steadily and without check. At this date there is no fluid perceptible in the abdomen; the spleen is not diminished in size, but is somewhat less firm. The patient has regained flesh and strength remarkably, and is better, by his own statement, than he has been for five years.

Remarks: Owing to a strong disbelief in the alleged powers of nitro-muriatic acid on the part of the surgeon in charge, this case affords an excellent and well marked contrast between the usual hydragogue and cathartic treatment, and that finally adopted. Tried only as a *dernier resort,* success followed the use of nitro-muriatic acid under very unfavorable circumstances. I am doubtful whether the great accumulation of fluid could have been gotten rid of without the use of mechanical means, but consider that question unimportant, believing the trivial operation of tapping to be far the most direct and least exhausting mode of relief, as well as the procedure offering the best chance to subsequent medicinal treatment. It is difficult to believe that cathartics or other medicaments can be absorbed at all while the whole portal system is not only blocked up by disease at its outlet, but compressed by a tense sack full of fluid.

CASE 2. *Cirrhosis of Liver—Enlargement of Spleen—Ascites—Death.* Patrick K.—Second-class fireman, *æt.* 34, native of Ireland, was admitted into the Naval Asylum Hospital, April 27th, 1867, from the U. S. S. "Mackinaw." Dr. Luck, U. S. N., indorses upon hospital ticket that "he was injured in the bilge-pump at St. Thomas, Sept. 4th, '66. Jan. 23d, last, he began to suffer from intermittent fever which has finally resulted in disease of the liver, the latter producing his present dropsical condition." Diagnosis of hospital ticket: "Ascites." Patient is dark, of middle height, and appears older than is stated above; presents marked emaciation; abdomen much distended, but there is no disturbance of breathing; spleen much enlarged; liver difficult to locate and define; dullness on percussion at the lower border of the right lung, extends nearly to the nipple; slight œdema of feet and ankles, none of face; no unnatural sound of heart; stools of normal consistence, but dark-colored and fetid; urine scanty and highly colored, but containing no albumen.

Diagnosis: Cirrhosis of the liver and consequent enlargement of the spleen, possibly directly due to intermittent fever, the anæmia of which was doubtless the immediate cause of ascites. Pre-existent cirrhosis established the predisposition. Cathartic and diuretic treatment was at once vigorously commenced. Special diet as nutritious as possible, avoiding green vegetables. There is a deficiency in the patient's linea alba, midway between scrobiculus cordis and umbilicus, in which no tendon or muscle can be felt.

May 2d. Application of nitro muriatic acid, as recommended by Dr. Martin, was commenced to-day. Special diet, cathartics and diuretics are continued. May 23d. From the 5th to the 21st of this month, the patient has taken 9 gr. gamboge, 4 scruples jalap and 9 drachms of bitartrate potass. A steady course of diuretics has been maintained since admission, with an occasional dose of calomel at night. Emaciation and asthenia have progressed rapidly, but very slight cartharsis has been produced, the intestinal veins being doubtless too tense to permit absorption. There is now considerable œdema of the lower extremities; the skin is dry and so tense that whatever virtue may be possessed by the nitro muriatic acid, externally applied, has but little opportunity for its exercise. May 26th. Commenced internal administration of nitro-muriatic acid, gtt. xv of the dilute acid three times a day. Other treatment continued. In the afternoon, the patient's feet and ankles became enormously œdematous, yet there is no albumen in the urine, or other proof of renal disease.

June 5th. Direct, right, inguinal hernia from internal pressure. Applied truss. General treatment, elaterium, etc., continued, with nitro-muriatic acid externally and internally. June 9th. Abdomen enormously distended. Tapped at 11 A. M., taking away 2½ gallons of amber-colored fluid; albuminous, neutral, containing chlorides in abundance. *Ordered,* Sol. morph. sulph. ℥ij, at once. June 10th. Pulse excited; skin hot and dry; tongue furred; thirst urgent; bowels still torpid. Cathartic treatment resumed, with diuretics. Internal use of nitro-muriatic acid discontinued. June 11th. Ate no breakfast; bowels obstinately torpid; tongue furred; skin dry; vomiting and severe epistaxis early this morning; urine very dark and muddy. June 12th. First yellow stool this morning. Pulse is stronger; appetite better; urine scant, dark and ropy. Continue acid baths, resume acid internally, and continue the regular cathartics and diuretics. June 13th. Pulse less irritable and skin less dry; stools yellow. While

straining at stool yesterday, bandages became displaced. This accident occurred again at 2 A. M. On both occasions a considerable quantity of fluid escaped. In the afternoon the patient became feverish, with hot and dry skin and furred tongue. Suspended internal use of acid. June 14th. Stools still appear to contain bile; urine is heavily loaded with "mixed urates" and phosphates. Fever has diminished; tongue clean; anasarca of lower extremities has nearly disappeared; urine loaded with phosphates and resembles thick pea-soup; reaction neutral, sp. gr. 1030; chlorides abundant, no albumen. A 10 A. M. vomited a pint of dark blood, clotted and grumous. *Ordered*, Persulphate of iron in one grain doses. July 13th. Patient died at nine this morning. Since last note he has been failing; vomiting of blood has been frequent, not yielding perceptibly to treatment, and yesterday he began to pass tarry stools. The plan of treatment has not differed materially from that heretofore noted. Small doses of calomel have been regularly given, with few and short intermissions, since the first admission of the patient, and from July 1st until this time he has taken two grains per day in divided doses.

Autopsy: Nine hours after death. Emaciation marked, the more so by contrast with the great protrusion of the abdomen. Cadaverie rigidity slight. Brain not examined. Recti abdominis muscles partly atrophied, particularly below umbilicus. Enormous quantity of amber fluid in abdomen. Lungs and heart sound. Liver pale, nodulated, very much diminished in size and altered in form and appearance, the left lobe being so atrophied as to be represented by a thin leathery process, not larger than a silver half dollar. On section, no portion of the organ could be found which appeared to be capable of exercising its functions. Gall bladder somewhat thickened, but otherwise normal. Bile very scant and dark-colored. Spleen enlarged to about twice its natural size, but of normal color and consistence. Notwithstanding the unhealthy appearance of the urine during life, both kidneys seemed to be sound. Stomach contained no blood, was somewhat darkened around cardiac portion, less rugous than usual—otherwise healthy. Small intestines bound down to pancreas and to each other by adhesions. Pancreas indurated and more prominently nodulated than usual. Supra-renal capsules lost in dissection. Probably the liver was too extensively diseased for any treatment to promise success.

Remarks: Although this poor fellow was treated strictly *secundum artem,* it seems to me that he had scarcely a fair chance. Subsequent experience has fully confirmed my conviction that it is worse than useless to endeavor to relieve distension by means of medicaments applied to the distal extremity of the portal system, through absorption from the intestine. As well might we try to clear the obstructed rain gutters of a house by pouring more water upon the roof, with the natural result of an overflow upon the steps below. In this case the liver had become nearly impervious to blood from the portal system, by reason of constriction from cirrhosis. So long as the intestinal veins continued to absorb fluid from the intestines, they became more tensely engorged, until their capacity being exceeded, the more fluid portions passed through into the cavity of the peritoneum. I do not doubt that a careful analysis would have disclosed the presence of a large proportion of the gamboge, jalap, elaterium and other hydragogues administered, in the fluid withdrawn from the abdominal cavity. It is not probable, however, that with so little efficient liver tissue remaining, this patient could have recovered under a different treatment.

CASE 3. John P. — Ordinary seaman, *æt.* 21 (per descriptive list), shipped at New York, Feb. 27th, '71, was admitted into the Naval Hospital at New York, at 5 P. M., Aug. 21st, '71, from the U. S. Ship "Relief." The hospital ticket, dated the day before, and signed by Dr. Griffith, U. S. N., states that the patient suffers from "Dropsy," and that "he was admitted to the sick list, May 5th, '71. The fluid steadily increased in quantity so that I had to afford relief by tapping on the 5th inst. The urine has diminished in quantity from the first of the disease." Aug. 22d. The patient is spare, dark, greatly emaciated, feeble, and suffers from constant and intense thirst. The age stated above (twenty-one years) is probably an error; he appears to be about thirty-five. Tongue red, rough and dry; abdomen greatly distended by fluid; cicatrix of former operation, two inches below and to the right of the navel; microscopic and chemical examination of the urine give no evidence of renal disease; heart sounds normal, but of diminished force; spleen somewhat enlarged; lungs sound;

liver is diminished in size, as shown by area of dullness on percussion; stools infrequent, hard, dark, clay-colored, and sometimes nearly black; urine scant, highly colored, and strongly acid. He complains greatly of pain in the bowels after eating. *Ordered,* a full dose of castor oil at once; pills of digitalis and squill three times a day. Aug. 23d. Urine increased in quantity; no diminution in size of abdomen. Aug. 24th. Bowels not moved in forty-eight hours; complains of severe pain in bowels and region of kidneys; abdomen exceedingly tense and prominent. Tapped at 3 P. M. in median line, two inches below the umbilicus, withdrawing fourteen pints of bloody fluid. The blood is present in so great quantity and so equably diffused that internal hemorrhage is feared. Patient is very comfortable, however, under the bandage, and his pulse has become quieter and less tense. *Ordered,* wine at once; Dover's powder at bedtime. Careful examination shows that no superficial vein has been wounded. Discontinued diuretics for the day. Aug. 26th. Doing well; hemorrhage does not continue. *Ordered,* powders of jalap and ginger once daily. Aug. 28th. Patient very comfortable, but belly is slowly filling up again. *Ordered,* the powders twice daily, and *nitro-muriatic acid, externally and internally, as in Cases 1 and 2. Aug. 29th. Substituted elaterium (Clutterbock's), gr. $\frac{1}{16}$, three times a day between meals, for jalap. Resumed squill and digitalis. Sept. 1st. Yellow, bilious stools with a tendency to diarrhœa; appetite better; less thirst. Continue treatment. Sept. 22d. Patient has greatly improved. The tumid abdomen, after increasing to about one half its former size, has almost entirely subsided. Nitro-muriatic acid and elaterium have been continued, and the dose of the latter increased to $\frac{1}{8}$ gr. Enlargement of spleen and contraction of liver can be closely made out; urine normal. The patient is gaining rapidly in flesh and strength. Digitalis and squill have been discontinued. Oct. 6th. Quantity of fluid in the abdomen has so greatly diminished as scarcely to be perceptible; general health steadily improving, the patient suffering still from borborygmi and colic pains after eating. Nitro-muriatic acid and elaterium are still continued, the latter having become necessary for the daily movement of the bowels. Nov. 20th. All treatment has for two weeks been abandoned. The patient is on light duty about the ward, but suffers still from occasional colic pains. There is a

*The acid could not be applied earlier owing to the presence of the necessary bandage.

swelling of the upper portion of the abdomen, extending from side to side, but not below the level of the pancreas, which is reducible by steady pressure, but not tympanitic. *Ordered,* solution of epsom salts, tablespoonful every morning. Applied pressure by bandage and compress. "Dec. 15th.* Slight increase in the size of abdomen. *Ordered,* steam baths every night; tinct. ferrichloridi, *gtt*xx, every four hours. Dec. 20th. Abdomen has steadily decreased in size since last note; steam baths produce considerable diaphoresis; feels much better generally, but suffers from thirst. Dec. 27th. Discharged to 'Vermont' (the receiving ship), on 'certificate of ordinary disability.'"

*Remar: ks*The progress of this case was unusually acute. The patient's own statement was that he had shipped in perfect health; that he "took a glass occasionally with a friend," but was not intemperate; that he was much exposed to sudden changes in temperature while on board the "Relief;" that his disease began with pain in the right hypochondrium, and constipation, soon after which his abdomen began to swell; and that he "took a great deal of medicine for his bowels and water before he was tapped." This operation was performed at sea, Aug. 5th, and, as he states, 3½ gallons of clear fluid were drawn off. But on admission to the hospital, sixteen days afterwards, his belly had so increased in size that tapping again became necessary, in three days more. So great had been the distension of the portal veins, that rupture and internal hemorrhage had already occurred previous to that time.

Now, what events followed the second tapping? The belly began at once to refill, and continued so to progress until, in six days after the use of nitro muriatic acid had been commenced bilious stools reappeared, for the first time since the beginning of the disease. From that time onward, the stoppage to the portal circulation having been relieved, the patient improved in health, weight and strength until he was discharged, convalescent, four months after admission. He was not, indeed, a well man; for but a portion of his already contracted liver remains in a condi-

*From the notes of Dr. Mackie, into whose care the patient passed after my detachment from the hospital.

tion to resume its functions. He was as nearly so, I believe, as it was possible for him to become.

Summary: There is a very evident and close similarity between the symptoms presented by these three cases; so that the unfortunate death and consequent autopsy of Case 2, effectually clears up any doubt which might obtain as to the accuracy of the diagnosis. All these were sallow, dark, spare—in short, exhibited the *bilious temperament* of the older writers. The age of all appeared greater than that stated—perhaps because of the ravages of disease. Case 3 grew younger daily from the time that amendment began. No treatment was at all beneficial, in any of the cases until after tapping had been performed, and the abdomen relieved of its fluid began at once to refill. But, and it is upon this point that I wish to lay especial stress, this increase in the contents of the abdomen continued only until in from three to seven days after the application of nitro-muriatic acid had been commenced, bilious stools reappeared. From this time, in those cases which terminated in recovery, improvement was steady, and continued until, as I believe, as full measure of health was reached as is consistent with the possession of a liver a large portion of which is griped to inefficiency, by a thickened and contracted Glisson's capsule.

I cannot of course pretend that, as a medial writer has elsewhere ingeniously remarked,* "one male leech makes a spring," nor yet that three cases of cirrhosis treated by nitro-muriatic acid can establish a canon in medicine, but I trust that the publication of these cases may lead to a more frequent adoption of this mode of treatment than yet prevails; and that where adopted, the composition and mode of application of the remedy will be made to conform to Inspector-General Martin's directions.

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* "Non unus *hirudo* facit ver."—*Am. Jour. Med. Sciences*, April, 1872, page 368.

ART. V.—*Suppurative Parotitis succeeding Intussusception.*

In the last number of the LANCET there appeared an article on Intussusception by Dr. Taliaferro, in which he describes suppurative parotitis as a sequela, and asks: "Could this condition of the glands have been accidental?" In June last, Dr. Pinkerton, of Oakland, reported to the Alameda County Medical Association a like case:

The patient was a female, *æt.* 6. The Doctor was called March 3d, and found her suffering from obstruction in the small intestine near the cæcum; all ordinary means failing, a consultation was called, in which it was determined to place the child under chloroform and fully distend the bowels with warm water. This was done twice, and then the patient placed in a hot bath, which had the effect of affording relief. On the 10th inst. a swelling appeared in the right parotid, which increased in size rapidly, and on the 15th it was opened, giving vent to a great quantity of pus; the abscess continued to discharge for about two weeks, and then rapidly closed.

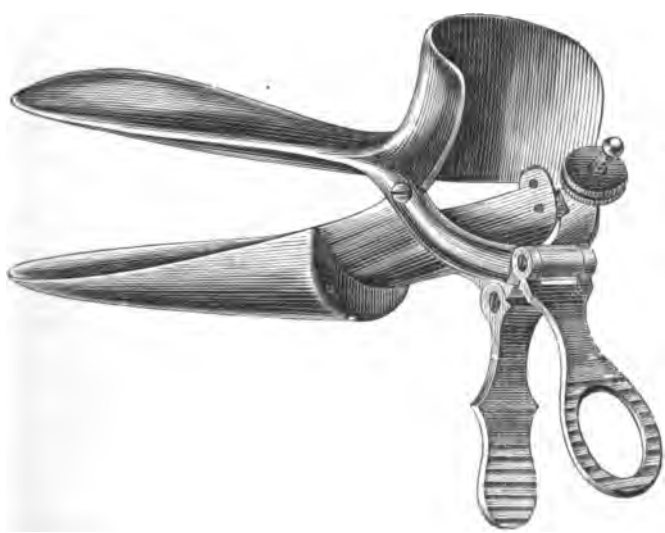
On reference to authorities, we find no case recorded of intussusception being succeeded by parotitis, but there are enteric diseases, and some not enteric, in which this latter exists as a complication. Niemeyer calls it "symptomatic parotitis," and says it "results from severe disease like typhus, and in some epidemics it follows nearly all cases." He also speaks of it after pneumonia, and says "the oral catarrh which always accompanies abdominal typhus, might excite the suspicion that the parotitis accompanying this disease was induced by a propagation of the catarrh of the mucous membrane of the mouth along the excretory ducts of the glands. But, opposed to this view, is the fact that the frequency with which it occurs in typhus, is not proportionate to the intensity of the affection of the oral mucous membrane, as well as the circumstance that parotitis running the same course, occurs in other affections that are not complicated with oral catarrh. Since symptomatic parotitis is seen not only in infectious diseases, but also in pneumonia, we cannot say that it is induced by an irritation of the glands from infected blood." Symptomatic parotitis may end in resolution.

Gynecology and Diseases of Children.

ART. VI.—*Description of a self-retaining Speculum, with illustration.* By EDWARD H. BRYAN, M.D., of San Francisco.

The attention of the profession is invited to the following description, with illustration, of a self-retaining speculum, lately made, at my suggestion, by Gemrig of Philadelphia, through his agents on this coast, Mr. J. Newman & Co., 411 Washington street.

The distinguishing feature of my speculum, which is a modification of Ricord's bivalve, consists in the *shoulder* projecting from the lower blade which, when introduced beyond the ostium vaginæ, encroaches on the recto-vaginal space, and is retained *in-situ* by the contraction of the sphincter vaginæ muscle, the patient being, of course, on



her back. The slight depression in the upper blade, together with the elevation on the upper surface in front, (which will be better understood by reference to the wood

cut, than by description), acts on the same principle as the shoulder to the lower, engaging under the arch of the pubis. The dimensions of the instrument are, length of lower blade from point to shoulder, 3.″; depth of shoulder, .5″; length of upper blade, 4.″; width of blades, 1.25″; clear operating diameter when blades are open, 1.25″; separation of blades when fully open, 3.5″

The advantages I claim for this instrument, are: First, its extreme simplicity, being composed of only two blades, two handles, one screw, thereby requiring very little trouble in cleansing; Second, its compactness, occupying when closed, and the handles are folded, but little more space than a pocket knife, a virtue which none of the other self-retainers possess—they being cumbersome and complex; and Third, its being what is claimed, a *perfect self-retainer*. It has been used in a great number of uterine operations and examinations in this city by gynecologists and other practitioners, who unite in its praise, and I have carefully sought to find a defect in the instrument, in order that it might be rendered more perfect before bringing it to the profession.

ART. VII.—*Reply to a "Case of Twins with a Single Placenta."*

By C. S. KITTREDGE, M.D., Oakland, Cal.

Messrs. Editors:—In the last number—April—of the WESTERN LANCET, in a report from Dr. Davison having the above title, I find the following question: "Have twins ever been born alive having one placenta in common?" As I have had in my own practice one case that answers this question, I state it.

Mrs. M., *æt* 33, was awakened from sleep at half-past eleven P.M., April 17th, 1870, by quite a loud noise, ac-

companied by a severe pain and the sudden bursting of the "bag of waters." I was soon with her, and on examination, found a breech presenting at the superior strait. For some time she was comparatively easy and strong bearing down pains did not appear until three o'clock A. M.; half an hour later she was delivered of a female child weighing seven and three quarters pounds. A second examination demonstrated a head presenting, and in fifteen minutes from the birth of the first child, a second was born, a boy weighing six and one half pounds. The placenta was shortly expelled, perfect in all respects, having both cords inserted near its center, about one inch apart.

Both children were born alive, and for two months were quite well, when the boy sickened and died. The other is still alive and in excellent health.

MAY 7th, 1872.

ART. VIII.—*Rupture of the Uterus and Vagina.*

DR. WM. BOLTON, of Oakland Point, reports to the Alameda County Medical Association, that he was called to see Mrs. M., *æt* 29. She was in her fifth pregnancy, at term; a woman of full habit, in fact, adipose. During the previous four months she had been compelled to remain in bed, for various reasons. At the eighth month she was threatened with premature labor, had severe expulsive pains, and suffered greatly from irritability of stomach, dysuria, constipation with extreme soreness on right side of uterus and over the pubis; with all this she was very nervous and depressed in spirits. The pulse averaged 110. Appropriate treatment moderated the unfavorable symptoms at this time. When taken in labor, at 3 P. M., she progressed as favorably as usual, her previous labors having been tedious. The vagina was cool and well lubricated, os dilatable, bladder and rectum empty, general condition good, pulse 100. The

liquor amnii, in great quantity discharged at 8 P.M., and examination found the head, in first presentation, at the superior strait. Propulsive efforts increased in force and frequency. At 1 A.M. the Doctor left the bedside for a short time and, on returning, found that the pains had ceased, but that there was increase of the previously experienced soreness over right side of uterus and hypogastrium; her general condition not otherwise changed. She took some nourishment and rested quietly for three or four hours when, no resumption of labor taking place, Dr. Cushing was called in consultation, and it was decided to deliver with the forceps, giving chloroform. On applying the forceps, the head slipped and receded *into the abdomen;* the hand was at once introduced, passing into the cavity of the abdomen outside of and obliquely to the right of the uterus, where the child was found and delivered by turning. It was a male child, and dead. On following the cord, the uterus was found firmly contracted upon the placenta which was brought away. A slight loss of blood occurred. A bandage was firmly applied and the patient placed on the right side, opiates freely given, perfect rest enjoined, ice to allay thirst, and a supporting diet ordered, with stimulants when required.

This general plan of treatment was continued. She had only favorable symptoms. On the fourth day a free alvine evacuation was obtained by enema; on the sixth, the discharge per vaginam, always free, was slightly fœtid. The tenderness of abdomen was but slight. On the morning of the seventh day she felt so well and was so restive from the restraint of lying in one position that she begged her attendants to allow her to sit up, and be moved into another room and bed. In their mistaken zeal for her comfort, they put her in a chair, allowed her to sit up for about a quarter of an hour, dragged her to the other bed and *tumbled* her in, she being too heavy to be managed otherwise. At 10½ o'clock he saw her with Dr. Cushing just after this occurred, and found her sinking rapidly; every effort was made to rally her, but she died at 1 P.M. The family being ignorant Irish, of course, no autopsy was allowed, and consequently the immediate cause of death was not demonstrated.

The Doctor considered that the rent in the uterus was reopened by the exertion and commotion consequent on the removal, and that the secretions, and probably air, passed freely into the cavity of the abdomen, producing a violent and overwhelming shock to the nervous system.

Dr. Bolton advanced no theory of the cause, immediate

or remote, of the rupture, unless it would be indicated in the description of the patient's general condition during her pregnancy, *viz:* the formation of a lax, soft, fatty tissue, entirely inadequate to resist the pressure of the expulsive efforts. The fissure seemed to extend above the os about four inches. It was considered that, but for the unfortunate removal of the patient, she would have recovered.

Ophthalmology and Otology.

ART. IX.—*On the Doctrine of Sympathetic Ophthalmia.* By A. V. GRAEFE.

Archiv. f. Ophthalm., vol. xii, section 2, pp. 149–174.

The doctrine of sympathetic ophthalmia is in many points still much in need of the supporting and correcting aid of accurately observed facts. Although all are agreed that an inflammation of one eye, may under certain circumstances seize on the other, yet the peculiar nature of these circumstances is still shrouded in obscurity. It is indeed known that such a transmission is chiefly consequent on injuries, and most frequently of all, on injuries with retention of foreign bodies. But it has been observed even without previous injuries, and has been on the other hand completely omitted in a very large number of cases of injury (even when the foreign body was retained). The question of the proximate causes of the sympathetic transmission from the one eye to the other, seems therefore to form the most important problem for the right appreciation of the etiology of this strange disease.

Without denying the fact, that it is and will remain in many cases extremely difficult, nay to a certain degree almost impossible, to distinguish the *successive* seizure by an internal disease acting on both eyes in common, from the *relative dependence*, which exists between both eyes in reference to certain forms of inflammation, v. Graefe yet considers it necessary to add something as to the modifications which his views have recently undergone.

First of all, it must be observed, that v. Graefe is no longer inclined to assume that simple *increase of tension* can of itself produce sympathetic ophthalmia, he inclines to think that a hyperplastic cyclitis usually intervenes.

"*A peculiarly painful sensation on touching the region of the ciliary bodies*" is considered by v. Graefe, as the chief symptom characteristic of hyperplastic cyclitis. This symptom may indeed be somewhat obscured by a condition of increased tension of the globe, the conduction in the ciliary nerves being in that case diminished, but if it is observed with diminished tension, and not only transitorily, but continuously, it must be looked upon as a symptom of plastic cyclitis, and as very important in respect to the other eye.

Cyclitis or irido-cyclitis usually proceeds from malignant iritis, the malignancy of which arises chiefly from an irrepressible tendency to cell proliferation on the posterior surface of the iris, which may very soon extend to the ciliary processes. The picture of this malignant iritis is drawn with an accustomed master-hand. The observation is added that the rapid transition of this iritis into irido-cyclitis is indicated by even more definite signs, among which are reckoned "the striking fluctuation in the consistence of the globe, the great painfulness of the ciliary region on touch, under certain circumstances symptoms of affection of the vitreous humour, and at last a definite change in the position of the iris," which latter seems to be dependent on a retraction of the periphery of the iris, in consequence of an agglutination of the posterior surface to the ciliary processes.

As very important for practice, v. Graefe refers to the fact that very violent suppurative inflammation, in which the greater part of the cavity of the globe is filled with pus, does not constitute a cause of sympathetic disease, and recommends, on the strength of this fact, the advantages of artificial stimulation of suppurative iritis by means of the seton, a plan much recommended by him formerly.* The explanation v. Graefe finds in the simultaneous destruction of the ciliary nerves—that is, of the channels through which the inflammation travels from the one eye to the other.

The enucleation of the eye first affected, which, according to the rule now in vogue, is to be carried out immediately on the appearance of sympathetic phenomena, yields, according to Critchett's † and Graefe's experience, by no means

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**Archiv. f. Ophthalm.*, xii, 2, p. 105.

† *Klinisch. Monatsbl. f. Augenheilkunde*, I, p. 440.

such brilliant results as was formerly believed. The successful results refer chiefly to that milder form of sympathetic iritis, which appears on the whole in the shape of secretory inflammation (iritis serosa); in the case of malignant iritis progressing with the formation of deposits on its posterior surface, enucleation of the eye first affected, does not commonly, essentially retard the process in the other if distinct traces of a diseased state were already perceptible in it. V. Graefe could only observe a cessation extending over several days, but not a permanent digression from the typical course. He adheres, nevertheless, to his former practice of enucleating the first eye on the commencement of sympathetic irido-cyclitis, *whenever it is fully blind*, and especially if it is, moreover, *painful on touch*, since the cause which produced the sympathetic disease will probably continue to aggravate the condition, and to prevent therapeutical interference with the second eye. But if even only a small vestige of sight is left in the first eye, it might be advisable not to undertake the operation.

Completely agreeing with Critchett, v. Graefe likewise thinks that operations on the eye secondarily diseased, must for the most part be abstained from during the acute stage. Apart from the great, often even insurmountable, difficulties of iridectomy, the re-actionary formation of the inflammatory products will usually be the result of operative interference. The evil is thus aggravated instead of being diminished.

V. Graefe has, however, again taken up the experiments with iridectomy on the sympathetically affected eye. He performed iridectomy, as he is now in the habit of carrying it out as a preliminary precedure in extracting the lens, making the wound quite peripherally and with a narrow knife. In this way the operator succeeds more easily in removing a considerable portion of the iris, and in one case, which is communicated in detail, the visual power rose after the operation from $\frac{1}{5}$ to 1. Whilst this case affords encouragement to further trials, v. Graefe nevertheless insists upon undertaking the operation at once, as soon as its ominous course is distinctly marked, for if malignant sympathetic iritis is allowed to establish itself, increasing objections are opposed to operative interference, and for such a case v. Graefe repeats, with all urgency, his advice of expectancy (three to four months), until especially all phenomena of sensitiveness in the ciliary region and some other symptoms disappear, or, at least, decrease perceptibly.

The operation, which is only required afterwards in the period of remission, consists in the extraction of the lens,

as well as of the iritic deposits intimately united to the capsule of the lens.

The author concludes with some observations of the less dangerous form of sympathetic iritis serosa, adding the short history of two peculiar forms of disease, on the sympathetic mode of origin of which there can exist no doubt, and which he denominates retinitis-sympathica, or choroido-retinitis sympathica.

[N. B.—The above is taken from "The Royal London Ophthalmic Hospital Reports, vol. vi, part iii, April, 1869." It is a translation (with omissions) of an able extract of Graefe's paper by Zehender.—ED].

Editorial.

The Report of Dr. E. T. Wilkins, appointed a Commissioner early in 1870, under an Act of the Legislature of California, to visit the principal Insane Asylums of the United States and Europe and report upon their management and the different modes of treatment of the insane adopted therein, together with statistics of insanity, has been published, by order of the Legislature, lately in session in Sacramento, and now lies before us. The Report appears to be, to a certain extent, a sort of treatise on this subject, addressed to ignorant members of the Legislature, and intended to enlighten their intellects on the matter of the prospected new State Insane Asylum. Full information is given upon all the points necessary to be understood for the selection of a proper location therefor, quantity of land required, and character of the same as affecting hygiene, drainage, and facilities for cultivation, accessibility from those portions of the State that yield the greatest number of insane, and most required asylum accommodations, internal organization and management, economy of

administration, and plans, specifications and descriptions of some of the best asylums in the United States, Great Britain and Europe. The chapter on Treatment of Insanity gives a fair view of the methods most in use in the different forms of the disease, particularly among American and English alienists. The statistical tables in the appendices are very full and valuable to physicians for reference, but the portion of the Report which constitutes a history of insanity from the earliest ages, and a treatise on the psychical aspects of the subject, might have been omitted as somewhat out of place, besides being better elucidated in many text books and monographs. An analysis by Dr. Moxet, Secretary of the Medico-Psychological Society of France, of the work of M. Legoyt on the Statistics of the Insane, is of great value and interest; it is given entire, excellently translated from the French by Miss M. W. Sawyer, Harrison Square, Massachusetts. The "Report of Lunatic Asylums," by Dr. F. Norton Manning, made to the government of New South Wales in 1867, is freely used and quoted from; indeed, Dr. Manning treats most admirably upon all the more important of the topics embraced in the present report, and his book will long remain a standard work of reference in the English language.

On the subject of separate asylums for chronic and incurable cases, Dr. Wilkins states that of the superintendents of insane asylums whom he met in his investigations, "about one fourth of those in Italy, one half in Austria, Moravia, Bohemia, Saxony, and a few other of the German States, perhaps a tenth in other continental countries, and one in twenty of those in Great Britain and the United States, were in favor of separation, while all the rest were opposed to the principle and the practice." The segregation in separate asylums of those deemed incurable deprives these unfortunates of the last gleam of that hope which is for the insane frequently the most efficient means of cure; and such segregation, doubtless, of itself, is enough to render many cases truly incurable. It has frequently happened that lunatics considered to be hopelessly crazy, have escaped from the asylums where they were con-

fined, and being so fortunate as to avoid recapture, have recovered their reason under the buoyant influence of freedom from discipline and confinement, when a continuance in the asylum would have been equivalent to lifelong insanity. This is not by any means to say that asylums are injurious or useless institutions—on the contrary, in the very great majority of instances of acute insanity, the surest, often only hope of cure, lies in prompt removal of the patient from the scenes and incidents of daily life, amid which the disease has made its onset, and subjecting him to the influences of the, so to speak, mechanically regular mode of existence that obtains in a well managed asylum, with its freedom from avoidable disturbances, its moral atmosphere of quiet discipline and habitual obedience to an intelligent, kindly head, and its soothing yet, so far as possible, cheerful *entourage*. But all this good is not without a sombre aspect. Asylums are essentially prisons; their attendants are jailors, frequently ignorant, and cruel through ignorance if not by nature, and too often fond of exercising unnecessarily the little brief authority they possess; and the great improvements of modern times in their construction, surroundings, and management, consist in hiding this their unpleasant aspect, and by kind treatment, regular and pleasant occupations, cheerful amusements and interesting studies, reconciling their inmates to the inevitable consciousness that they are prisoners. After a certain length of time, varying in different cases, almost all inmates of asylums who have any considerable degree of intellect left, and some who have very little beyond the memory of former times, become tired of their routine mode of existence and long for the change and freedom of the outside world. This sometimes acts as a healthy stimulus and facilitates and hastens a cure, and it sometimes has the opposite effect, depriving of hope and depressing. But still, simply because they are insane (except in the case of dangerous and suicidal lunatics), these are kept locked up, deprived of liberty, the chief thing that makes life worth having. It may have been that in the acute stages of the disease, the asylum was the proper place for them; or it is, for their

friends (?) an easy mode of getting rid of them; or convenient on grounds of economy; or perhaps it may be taken for granted that this imprisonment is never an injustice to one distraught of his reason. But surely none of these considerations afford good grounds for keeping an insane person in confinement until cured, or, if incurable, a perpetual prisoner. Perhaps the next great advance in the treatment of the insane will be the setting free of those whom asylum life no longer benefits, admitting them to the incalculably curative influence of constant association with those possessed of their reason, and the educating the world at large to the knowledge that a lunatic is not, simply because he is a lunatic, to be feared and avoided, but that he is, even more than any other one stricken with disease, to be pitied and helped onward to health by kind ministrations and human sympathies. Treatment by the restraints of straight-jackets, hand-cuffs, coërcion chairs, has of late years been vastly curtailed; perhaps the restraint of the asylum itself may be doomed to a similar abridgment.

If it is undesirable that chronic and incurable cases should be kept in asylums devoted to this class only, the same cannot be said of the criminal insane—criminals who have become insane while confined in prison. The great majority of these, coming from the lower strata of society, are degraded and repulsive, and it is an injustice to those already so unfortunate as to be afflicted with mental alienation, often having abnormally keen sensibilities, to thrust into their companionship these criminals—the moral influence upon the former cannot fail of being bad, both directly and in its direct assault upon that feeling of natural self-respect, to foster which is so important a part of the moral discipline of the insane. Dr. Wilkins' reasoning upon this branch of the subject is sound and judicious. He recommends the erection, in conjunction with the State Prison Hospital, of a suitable building for the accommodation of this as yet not numerous class in California. They are still sent, as heretofore, to mingle with the non-convict population of the State Insane Asylum at Stockton.

Another subject, and a very important one referred to by

Dr. Wilkins, is the accommodation of paying patients in separate asylums. He says:

"Some eminent men in all the countries we have visited have given as their decided opinion, that patients who pay and those who do not should never be kept in the same asylums nor placed under the same administration, as the privileges that will be allowed the one, beget jealousies on the part of the other, while the necessities of a crowded asylum often enforce associations that would not be recognized at home, and with all the sensibilities sharpened by insanity, as sometimes happens, disgusts and dissatisfactions are engendered, and detrimental results the consequence.

"What is *best* to be done and what *can* be done are two very different propositions, and in a majority of cases we have to accept the latter. If it were possible, however, there is no question it would be best for each State to furnish one asylum for the accommodation of all of its citizens who desired to pay for accommodations superior to those that can be given to the indigent. These should be charged a sufficient sum to defray all the expenses of such an establishment, including officers' fees, repairs, and other expenses, the State only furnishing the buildings. All other asylums should be *free* to every person belonging to the State who might elect to enter them, without the payment of *fee* of any kind. If this system could be adopted, many economical changes might be made in the construction of our asylums, without detriment to any class of patients. An asylum for one hundred patients would probably be sufficient for all of this class now in our asylum, or likely to be committed during the next ten years. It should be as much under the control and watchful supervision of State officers as the others, and all charges should be regulated by State authority, in order that no person should profit by its operations save and except the patients who paid for the privilege of having more quiet, more comfort, and more attention than the State could afford to give."

A table is also given showing that the number of pay patients in the State asylum at Stockton was, on January 1st, 1872, only nineteen males and fourteen females; and Dr. Wilkins favors the abolition of all charges as far as relates to citizens of the State of California, until the system he suggests, of a pay asylum, can be carried out. This latter idea, of the abolition of all charges, we do not favor,

though the one of a pay asylum we do. Abolition of all charges would keep out of the State asylum a number who now enjoy and require its benefits; and even after the establishment of a pay asylum the reception of pay patients by all the asylums of the State ought to be allowed, thus giving a desirable option of locality, skill and reputation of superintendent, and ability of management. As for the size of the pay asylum proposed, we do not think with Dr. Wilkins, that one capable of accommodating one hundred patients would be sufficient for the next ten years. Many are attacked with insanity here who, in the present state of social feeling, would be committed to an asylum of the character proposed by Dr. W., but are now sent by their friends to Eastern or European asylums for treatment, partly because of the overcrowded condition of the State institution at Stockton, partly because the legal regulations regarding pay patients there contemplate only one class of these, viz: those who pay fifteen dollars a month, and proper provision cannot be made for such as desire and can pay for treatment and luxuries of a costly character.

No asylum ought to be maintained as a source of profit to the owner or manager of the same, whether this be the State, or a private corporation or individual. The suspicion that naturally attaches to every thing that is done and all advice that is given for the benefit of every patient in such an institution, that such acts and advice are to some extent tainted, perhaps unwittingly, by interested considerations, often interferes so materially with carrying out the proper course of treatment, detracts so seriously from the weight of such advice, that both patient and physician suffer. The former does not obtain the benefit to be derived from a hearty coöperation on the part of his friends in the course of moral treatment prescribed by the physician, often a very material, even essential element of its success; and treatment is often interrupted by the premature removal of the patient from the asylum to his great detriment. The physician suffers in professional character and weight of authority. A pay asylum, such as that proposed by Dr. Wilkins, would, of course, be free from these objec-

tions; but even every private asylum, to attain its maximum of usefulness, ought to be so organized that all its officers and employees would receive only their stipulated salaries, and if any surplus of money remained after payment of current expenses, those for repairs and maintenance of efficiency, and the integrity of a reserve fund for emergencies, this surplus should be returned to the institution in the shape of improvements for the benefit of all of its inmates. If asylums were the opposite of what they are, and intended for the treatment of reasoning beings capable of judging what is for their benefit, the decision as to course and duration of treatment would properly be left to the patients themselves; but as it is, the decision is to be made by ignorant and suspicious friends, or by interested physicians: not a fair thing. The physician should be not only an entirely disinterested party, except professionally and scientifically for the sole benefit of the patient and of science, but he should be even above the suspicion of a pecuniary interest in continuing the treatment. Then his opinions would command respect and carry their proper weight.

A very important subject, one not considered by Dr. Wilkins, is the proper mode of committal of the insane to the confinement of an asylum, and their supervision while there by State or judicial officers. The law upon this subject in California, provides, that upon affidavit before a county or Probate Judge that So-and-so is insane and by reason of insanity dangerous to be at large, the person so accused shall be examined by the said Judge and two regularly educated graduates in medicine, to be appointed by the Judge, who shall together take sworn testimony in the case, and upon the sworn finding of these physicians that the accused is insane and dangerous to be at large, he is committed by the Judge to the State asylum, and there he passes from public or official observation. By the elastic stretching of the provisions of this law all kinds and degrees of insanity find their way for treatment to the public asylum. The law is imperfect and ought to be amended. It should provide for the committal of all insane needing asylum treatment, not simply those dangerous to themselves or

others. It ought to allow of the committal of the lunatic to any asylum in the State, public or private, which the friends of the patient may prefer, unless good and sufficient reason can be shown for disregard of this preference by the magistrate making the commitment. The power to commit ought to be vested in all State judicial officers, not restricted only to Probate and County Judges, as emergencies might arise, particularly in extensive or sparsely settled counties, necessitating immediate placing of a patient in an asylum, when neither Probate nor County Judge might be accessible—and no person ought ever to be subject to the confinement of an asylum except on commitment by a magistrate under certificate of insanity sworn to by at least two competent and respectable physicians. Provision ought also to be made by law for the regular supervision, by commissioners appointed for the purpose, over all insane persons in the State subjected to restraint, whether in public or private asylums, or general or special hospitals, or private houses, and of these commissioners a majority should consist of competent physicians and a minority of qualified lawyers. These commissioners should have authority to order discharged from confinement or restraint any insane person not requiring either. We regret that Dr. Wilkins has not discussed these topics in his report, within whose scope they fully fall, as his judgment upon practical questions appears very sound and reliable, and such recommendations as he might have made would have had considerable weight with the Legislature.

The report refers to the propriety of giving instruction in psychology and psychiatry in all medical colleges. This is now generally conceded, and in some of the leading institutions of the kind in this country special professorships for their purpose have been instituted. Not only thus will the interests of the insane and the science and art of mental pathology be improved, but as the study of pathology and rational therapeutics have been powerful factors in developing the science of physiology, so the investigation by every student of medicine of the phenomena of insanity will lead to a wiser mode of research and a continual approach to

perfection in the science of mental philosophy: for it is only to a proper physiological objective method of investigation of the phenomena of mental operations that we are to look for any true advance in psychology, the most important to humanity of all the brotherhood of the sciences. In the words of the motto inscribed by Sir William Hamilton on the walls of the class room of Logic and Metaphysics in Edinburgh—

"On Earth there is nothing great but Man: in Man there is nothing great but Mind." *

We regret to notice in the report of the proceedings of the "Sacramento Society for Medical Improvement," published in the *Pacific Med. and Surg. Journal* for May, a sentence well calculated to give an erroneous impression.

At one of the meetings of the stockholders of the LANCET, a member remarked that he had recently come from Sacramento, and that in a conversation with one of the members of the Medical Society, he had mentioned that we would also publish their reports if a copy was furnished. The reply was: "Apply for a copy of the Secretary's report and you will get it." The Secretary of the "Lancet Association" was accordingly instructed to apply for a copy, and did so; the result is reported in the article referred to.

It was by no means the intention of this paper to get a monopoly of their reports, and the letter of the Secretary cannot be construed to infer that much.

If the members of the Sacramento Society wish their professional debates and mental flights disseminated "for the present" by the *Journal* only, we shall not mourn. They should be the judges as to whether their own deliberations can stand printing a second time, and we are, by no means, in want of material to fill our pages; besides, the publication of an article or a report to which the name of the author is appended does *him* more credit or discredit, as the

case may be, than it does to the paper printing it. If the article be worthy, his reputation is first secured, and through him the journal that gave it circulation gains credit; if the contrary be the case, the journal is apt to suffer first for giving it light.

Perhaps we placed the Society under obligation to us!

The appearance of the LANCET has been delayed for one week, in order to give our readers a synopsis of the proceedings of the American Medical Association.

In our next we will make such comments as may be necessary. At present we can only express our satisfaction at the tardy act of justice done California in giving one of her representatives the Presidency. It would have come with far better grace last year, but circumstances to which we alluded in a former number, prevented at that time.

The N. Y. Dispensary furnishes, through its physician, Dr. F. P. Foster, a reliable supply of vaccine, humanized and non-humanized. Inoculations are practiced on healthy calves every week, and the matter preserved in sealed glass tubes. In the same manner is preserved the humanized virus one or more times removed. Dr. Foster has lately forwarded a supply to Dr. J. T. Crook, of this city, and physicians wishing a reliable article can obtain it at his office, 204 Montgomery St.

Miscellaneous.

The American Medical Association. Twenty-third Annual Meeting, May 7th, 1872.

The meeting was called to order by the President, Dr. D. W. Yandell, of Kentucky. Bishop Stevens opened the proceedings with prayer. An address of welcome was delivered by Dr. R. E. Rogers, who congratulated the Association that this was the largest meeting of the Association ever held; his allusion to the revoking of the charters of the bogus colleges, was greeted with loud applause. Dr. E. Hartshorne, Chairman of Committee of Arrangements, reported 302 delegates already registered.

The President then delivered his address, which was quite lengthy, and for which the Association returned a vote of thanks.

[We regret our inability to furnish this paper, as well as a more extended notice of the debates. The parties who promised to forward copies to us *at once*, failed, and in consequence, we must defer their publication to a future number.—ED.]

Dr. H. F. Askew, of Delaware, offered a resolution, providing for the reference to the Committee on Ethics, without debate, of all questions of a personal character, and all questions in reference to credentials. Passed. The Chair appointed as such committee, Drs. Askew, of Delaware; N. J. Davis, of Illinois; S. Scavey, of Maine; J. K. Bartlett, of Wisconsin; S. D. Gross, of Pennsylvania.

The Association then adjourned to the 8th, at 10 A.M.

THE SECOND DAY'S PROCEEDINGS.

May 8th, 1872.

At ten o'clock the delegates to the convention reassembled.

In the absence of President Yandell, Vice President Dr. T. M. Logan of California, called the meeting to order, and in doing so he reminded the convention that, by the rules, State delegations were required to meet and elect one member from each to nominate officers of the association, members to fill standing committees and to name the next place of the next annual meeting.

At this point, owing to the inability of some delegates far removed from the stage to hear, owing to the imperfect acoustic arrangements of the hall, an adjournment was made to the First Reformed Presbyterian Church, Broad street, below Spruce, where Dr. Yandell met them as presiding officer.

Dr. Bronson, of Massachusetts, submitted a resolution changing one of the by-laws of the association, making the number of the Committee on Ethics seven, and directing that they shall derive their nomination from the Committee on Nominations, instead of being appointed by the Chair.

Upon the question being submitted to a vote the Chair decided it lost. The house then divided upon an appeal, and the decision of the Chair was sustained by a vote of 167 for the resolution and 187 against it.

Dr. Davis, of Chicago, offered a vote of thanks to the Massachusetts Medical Society, for their energy in exluding and driving out quackery from the profession. Referred to the Committee on Ethics.

The Committee on Publication presented their report, which referred to the treasurer's report for detailed statements respecting their action.

Dr. Casper Wister, the treasurer, presented his report setting forth the expenditures during the year as having been $3,680, leaving a balance on hand of $1005.

Dr. G. S. Weatherly, of Alabama, read the report of the Committee on Medical Education, which, after going briefly over the ground of the state of education in this country, and making a comparison with the European plans, threw out a number of suggestions that no more charters be granted to medical colleges which do not adopt the plan of medical education indorsed by the association, and that applications be made to the Legislature for the revocation of the charters of such colleges as do not adopt the plan of the association, and that no delegate be admitted into the conventions from an institution which has failed to adopt such plan. The report alluded to the rivalry between the various medical colleges, which induced them to lower the charges for education, and tended to make them throw abroad upon the world men who were totally unfit for the physician's duties. This was appropriately referred.

Dr. Francis Gurney Smith, from the Committee on Prize Essay, in the absence of Dr. Stillé, chairman, presented a report announcing Dr. Samuel R. Percy, of New York, as the successful essayist, who had handed in an essay upon "The Physiological value of Phosphorus as an Organismal Element." Referred.

Dr. T. Parvin, of Indiana, read the report of the Committee on Medical Literature, which asserted that while the medical profession of the country had a journalism which was honorable, worthy and able, yet that it was exposed to the danger of becoming local, provincial, was subjected to the influences of certain colleges, and that it sometimes, too, descended to the lauding of quackeries. The report recommended that manuscript books on medical topics, designed for publication, should be referred to the Committee on Medical Literature for critical examination; and that then, if the report was favorable, the work should be produced "under the auspices of the American Medical Association." Referred.

The report of the Committee on American Medical Necrology was presented and referred without being read.

Dr. William R. Findley, of Pennsylvania, offered a resolution referring to the Committee on Ethics the resolution adopted at the New Orleans meeting of the association, which set forth that physicians who attended families on contract or by the year, or bid for practice at less rates than regular graduates, were to be classed among irregular practitioners. Agreed to.

Dr. George Sutton, of Indiana, read a paper urging the necessity of the establishment of a National Medical Library.

Dr. Woodward, of the United States Army, referred to the existence of such a library at Washington, established by the government. He said it contained eighteen hundred volumes, all catalogued and was open at all times to the members of the association.

After some discussion of a question which arose concerning the powers of the Publication Committee, and which was settled by a vote of the convention to leave those powers untouched, the meeting adjourned.

The afternoon was again occupied in reading of papers in the various section rooms.

In the evening the association met in the chemical lecture room of the medical department of the University of Pennsylvania, to listen to a lecture by Professor Noyes, of New York, on "The Relation of Diseases of the inner structure of the eye to other affections of the body."

The attendance was very large, and the remarks of the speaker were listened to with deep attention. The lecture was illustrated by ophthalmoscopic pictures in the magic lantern. These were thrown upon the screen so clearly that the finest lines were plainly discernible.

Upon the conclusion of this lecture a brief lecture was

delivered by Professor R. E. Rogers, of the University, on "Electrical Phenomena." His remarks were of an interesting and instructive character.

THE THIRD DAY'S PROCEEDINGS.

May 9th, 1872.

The convention was called to order by the President, Dr. Yandell.

A preamble and resolutions adopted by the College of Physicians of this city, the preamble reciting the frequency of cases of accidental poisoning by druggists, and the resolution recommending that all bottles containing poison should not only be labeled "poison," but should be roughed on one side so as to indicate their poisoning contents to the sense of touch, and also be labeled with the most ready and efficient antidote, were read, and upon motion, adopted by the convention.

A resolution offered by Dr. Horner, of Virginia, that the members of the Association should discourage the use of alcoholic stimulants in their remedies, was adopted.

Dr. Walker, of Brooklyn, presented a resolution that so much of the report of the Committee on Literature as relates to the establishment of a national medical journal be referred to a committee, to report at the present session. Agreed to.

Dr. Francis Gurney Smith, from the Committee on Nomenclature, read a majority report, recommending that the Association adopt a new system of nomenclature, and moved its adoption.

Dr. Woodward, of the United States army, read a minority report and an accompanying resolution, setting forth that, as the matter was one too serious for hasty adoption, the majority report be printed and lay over till the next annual meeting.

Some debate ensued, after which Dr. Woodward's resolution was adopted.

Dr. Baldwin read a partial report from the Committee on Nominations, as follows:

President—Dr. Thomas D. Logan, Cal.
First Vice-President—Dr. Catlin, Conn.
Second Vice-President—Dr. McPheeters, Mo.
Third Vice-President—Dr. Pollock, Pa.
Fourth Vice-President—Dr. Briggs, Tenn.
Treasurer—Dr. Caspar Wistar, Pa.
Librarian—Dr. William Lee, D. C.
Committee on Library—Dr. J. M. Toner, D. C.
Next place of meeting—St. Louis.

Assistant Secretary—Dr. M. A. Fallon, Mo.

The report was accepted.

Dr. Baldwin requested further time for his committee to complete their report.

The report was adopted as far as read.

Dr. Logan, of the committee, read a report on public hygiene, recommending that institutions in this branch of medicine be organized throughout the land; also the more perfect education on this subject in our schools. Allusion was made to the inability of physicians obtaining an early information of the prevalence of disease in a district, and they were often prevented from studying a disease in its incipiency.

The committee asked to be continued for the purpose of still further studying the subject of State medicine, and offered a resolution that there be appointed a special section on the above subject and on public hygiene.

Dr. Tucker, of California, offered a substitute, recommending the formation of a National Medical Bureau, instituting a national system of quarantine, and recommended the publication of information referring to medical practice.

The substitute was voted down, and the resolution of the committee agreed to.

The Committee on Nominations presented a further report, as follows:

Committee on Arrangements.—Dr. J. B. Johnston, Dr. J. T. Hodges, Dr. J. S. Moore, Dr. Robinson, Dr. Kennard, Dr. Teste, Dr. Brokaw, Dr. J. M. Scott, all of St. Louis.

Committee on Publication.—Dr. Atkinson, chairman, Pa.; Dr. D. Murray, Chester, Pa.; Dr. Wm. Lee, District of Columbia; Dr. Caspar Wistar, Pa.; Dr. H. F. Askew, Delaware; Dr. A. Meigs, Pa.

Committee on Prize Essays.—Dr. Moore, chairmain, Missouri; Dr. Gregory, Missouri; Dr. Davis, Illinois; Dr. Parvin, Indiana; Dr. Mendenhall, Ohio.

Committee on Medical Education.—Dr. Carson, Chairman, Ohio; Dr. Tojan, Ga.; Dr. Howard, Md.; Dr. Steel, Col.; Dr. Vanderpool, N. Y.; Dr. Johnson, District of Columbia; Dr. Stout, Ga.; Dr. Welsh, Texas; Dr. Scott, Ark.; Dr. Bailey, N. Y.; Dr. Jones, Ala.; Dr. McRuor, Me.; Dr. Talley, S. C.; Dr. Blaine, N. J.; Dr. Shattuck, Mo.; Dr. Jaques, Va.

Committee on Medical Literature.—Dr. Flint, chairman, N. Y.; Dr. Yandell, Sr., Ky.; Dr. Henderson, Ala.; Dr. Thrall. Ga.; Dr. Leary, Me.

Committee on Medical Necrology.—Dr. Jackson, chairman, Ky.; Dr. Parsons, R. I.; Dr. Hildreth, W. Va.; Dr. John-

son, D. C.; Dr. Simmons, Cal.; Dr. Wariner, Oregon; Dr. Stevens, Ohio; Dr. Agnew, Pa., and others.

OFFICERS OF SECTIONS.

Chemistry and Materia Medica—Dr. R. E. Rogers, Chairman, Philadelphia; Dr. Ephraim Cutter, Secretary, Boston.

Practice of Medicine and Obstetrics.—Dr. D. A. O'Donnell, chairman, Baltimore; Dr. Benjamin F. Dawson, Secretary, New York.

Surgery and Anatomy.—Dr. Warner, chairman, Baltimore, Dr. W. Peck, Secretary, Iowa.

Climatology and Epidemics.—Dr. George Sutton, chairman, Indiana; Dr. Elisha Harris, Secretary, New York.

Medical Jurisprudence, Hygiene and Physiology.—Dr. R C. Busey, chairman, Washington; Dr. H. B. Arnold, Secretary, Baltimore.

Psychology.—Dr. Isaac Ray, chairman, Philadelphia; Dr. John Curwin, Secretary, Harrisburg.

The report was accepted.

A preamble and resolutions were presented and adopted declaring the Massachusetts Medical Society in full accord with the American Medical Association, upon which Dr. Bronson, in behalf of that society, tendered its thanks for the unanimity with which the preamble and resolutions were carried.

The Committee on Ethics presented their report, in which, among other things, the names of certain members were mentioned for exclusion for non-payment of dues; also, that alumni associations of medical colleges were not entitled to be represented in the association. The subject of the contracting for the supplying of medical attention by the year to every one other than charitable institutions, was laid over.

The question of the admission of females to positions as students and professors, in various medical institutions, was then referred to, and after a recital of the past action of the conventions on the subject, mention was made of the names of the Academy of Medicine, of Washington, D. C.; the Freedmen's Hospital, of Washington, D. C., and the medical department of the Howard Institution, as associations which had females among their practitioners, and had among their members unlicensed practitioners. The committee recommended that the delegations from these institutions be not, therefore, received in the present body.

Dr. Rayburn, of the District of Columbia, one of the professors of Howard University, took the floor against the

recommendation of the committee. He alleged that if the delegates referred to were kept out, they would be kept out because they were not in good standing with the Washington Medical Association, and that that association licensed irregular practitioners, and also charged a fee for its license, against the legality of which there had been several judicial decisions.

Dr. Busey, of Washington, followed him in the defense of the medical society of that city, and in favor of the recommendation of the committee. He asserted that the society had never licensed irregular practitioners, or homeopathists, or any practitioner that had not presented a diploma from some regular medical school, or passed an examination before the society's board. Dr. Rayburn, on the contrary, was a member of an institution which did receive irregular practitioners.

After an exceedingly stormy debate, the report of the committee was adopted as a whole.

The Association then adjourned.

FOURTH AND LAST DAY'S PROCEEDINGS.

May 10th, 1872.

Dr. Yandell in the chair. Resolutions of regret were introduced at the death of Dr. Z. Pitcher, of Michigan, and Dr. W. Gerhard, of Pennsylvania. The resolutions were unanimously adopted by a standing vote.

A resolution providing that the Marine Hospital service be placed on the same footing as the Medical Department of the Army, was laid over until the next meeting.

The reports of the various sections and special committees were presented and referred to the Committee on Publication.

Dr. S. D. Gross offered an amendment of the by-laws, modifying the section, so that instead of separate reports on education, literature, climatology and epidemic diseases, there should be annually delivered one address on medicine, one on surgery, one on midwifery, and one on diseases of children. The lecturers to be appointed by the Committee on Nominations. The amendment was ordered to lie over until next meeting.

Resolutions were passed recommending the appointment of a commission of reports, by the Courts, in all capital criminal cases where medical testimony is required, instead of the present system of employing physicians on opposite sides.

The usual "resolutions of thanks" were then adopted.

A resolution was introduced setting forth that the association acknowledges the right of women to study and practice medicine and surgery, in all its branches, but condemns the public association of the sexes in mixed classes and clinics, as subversive of true modesty and delicacy in both sexes. Consideration of resolution was indefinitely postponed.

The President made a short address and adjourned the association *sine die.*

Report of Meetings of the San Francisco Medical Society.

APRIL 23d, 1872.

Dr. Soulè presented as a pathological specimen, a heart showing disease of the mitral valves with the "Button-hole slit," described by Dr. Flint. There was slight hypertrophy. The man had had cough for some years, but had referred the difficulty to the lungs. Two months before death he had pneumonia from which there had been partial recovery although expectoration persisted. There had been a murmur at the mitral valves during life which was supposed to be due to constriction of the left ventricle. The autopsy showed that congestion and chronic pneumonia had existed. Cavities were found in the right lung, tubercles in the left, also some in the right. The pleura was adherent. There was 10 oz. of fluid in the pericardium, and some in the pleural cavities. The immediate cause of death had been evidently disease of the lungs; this had been caused however by the damming up of blood in the lungs through mitral insufficiency.

Dr. Bentley presented a heart in which the foramen ovale persisted. The subject was aged 35 or 40 years. The abnormal condition had never been suspected during life. The Doctor stated that the subject just referred to, had been a dissipated man. During a drunken fit he had fallen on his bed, face downwards, and died. He thought that life had been previously sustained by a sliding of membranes which closed the foramen during the systole, and that death

had ensued when the peculiar position in which he had fallen had prevented the adventitious valves from acting.

Dr. Bentley also exhibited an epithelioma which had opened on the left side of the fauces: it was very large. The patient had been admitted into the City and County Hospital months ago. Dr. B. wished to ligate the common carotid and then to attempt the removal of the tumor. On consultation with other physicians of the Hospital it was decided to be inexpedient, and a hypordemic injection of the sulphate of morphia was given to lessen the sufferings. The patient died one hour after the injection.

Another case of hypertrophy was presented without valvular disease. There was atheromatous condition of the aorta, aortic valves and the left side of the heart. The patient had only suspected disease of the heart twenty-four hours before death. There was œdema of the lungs without other pathological indications: the kidneys were granular. Dr. Gibbons said this case had been under his care at the City Hospital, where he had been admitted two months ago. Age 45. Severely salivated. This was the result of the treatment of an enterprising apothecary named Wood, of South San Francisco. The Hospital care was directed to the cure of the ptyalism, which soon yielded. Some symptoms of hypertrophy were noticed. There was a soft gushing sound with the first sound of the heart. The abdomen was distended, and he had inferred that the liver was affected. There was no albumen found in the urine, but an excess of urea. The discharge of urine was normal. The fluid which distended the abdomen and occasioned the anasarca was discharged in a great measure, from time to time, by transudation through the scrotum. Two weeks before death a cough commenced. Finally he was seized by severe pain in the head, followed by unconsciousness and death; the immediate result of the morbid condition of the kidneys.

Dr. Ferris read a paper written by Dr. Weeks giving the history of a case as follows: Was called Monday April 8th, to see a married lady *aet.* 30. She had been married twice and had had six children by her first husband. One year ago had married the second time. She was suffering from spasmodic pains of the lower part of the abdomen. Each pain lasted 30 seconds, and they occurred at intervals of about six minutes; pulse 130 of little volume, abdomen was soft, but a hard tumor of about the size of an orange was situated immediately above the pubis; menstruation had been irregular and profuse during the last three months. At the return of each pain there was a discharge of pus with an

odor of urine. She said she had supposed herself pregnant and some old women had given her something dark to produce an abortion. By digital examination, the uterus was found misplaced, the os being immediately under the arch of the pubis and close to the meatus; could not determine where the pus came from. Tongue was dry. Ordered an anodyne solution containing the sulphate of morphia and camphorated tincture of opium.

Tuesday 9th. Patient relieved; no pain; pulse 138; had taken the anodyne during 17 hours; bowels had moved freely, still a dripping of water and cystorrhœa, abdomen tympanitic. Directed flaxseed tea, tonics and the nitrate of potash. In the evening the symptoms were more serious; the abdomen was swollen; there was constant pain; there had been no discharge for 8 hours; there was effusion in the vulva. The use of the catheter served to discharge slime. Injected warm water into the bladder and directed stupes to abdomen. April 10th. Patient passed a restless night; in the morning had taken some beef tea and boiled milk. Dr. Chamberlain introduced the catheter but it became immediately clogged. Pulse 128 and irregular; great œdema of the parts. Ordered Magnesiæ, Sulph. ℥j to obtain full evacuations; also stupes to abdomen. April 11th. Patient very low; there had been no movement of the bowels; the abdomen had remained in the same condition; pulse 146; vulva swollen. Ordered a cataplasm of flaxseed meal for abdomen and repeated the other prescriptions. Patient died at 6 o'clock. Autopsy was held at 9 o'clock A. M., 12th. The uterus vagina and bladder were here presented for the inspection of the Society. The uterus and vagina were healthy, but the walls of the bladder were much thickened, especially near the neck and very vascular. It might have been acute catarrh or malignant disease.

Dr. Cole said there were two points he wished to call attention to. 1st. What is the previous history? Nothing seems to be known about it. 2d. There is no record as to the condition found *post-mortem* of the kidneys and ureters. There might have been constriction of the uretus, or they may have burst.

Dr. Ferris said the ureters were normal but that the kidneys were granular; there was congestion of the intestines and of the peritoneum.

Dr. Cole thought the uterus presented was too long and too thick to be normal. What was its condition prior to the acute inflammation? It might be that the process of involution, which possibly had not been completed since

the birth of the last child, had been the cause of the difficulty. It had been stated that the uterus was retroverted. Was the tumor spoken of, retroverted uterus?

Dr. Chamberlain said the tumor was thought to have been the bladder, and Dr. Ferris said positively that it was the bladder. Dr. Cole thought it very strange. Why did she die of peritonitis? Perhaps there may have been yphoid symptons.

Dr. Ferris thought it might be that the medicine she had taken to produce abortion, had caused the trouble. It should be investigated.

Dr. Bently remaked that the bladder was a case of "concentric hypertrophy," viz: "enlargment of the walls at the expense of the cavity." Tenesmus simulates labor pains. The bladder was adherent to the uterus, and when it was drawn up, must bring up the uterus. It could not, therefore, have been retroverted. The peritonitis had been brought about by contiguity of tissue.

MAY 14th, 1872.

Dr. Regensberger exhibited a fœtus born at the fourth month. The funis was wrapped around the neck five times, and the death in utero had no doubt been caused by strangulation.

Dr. Bently presented, 1st, a well marked case of cirrhosed liver, the organ was much contracted, and the omentum was adherent to it, and also to the walls of the abdomen.

During life, there had been no direct indication of hepatic disease; no jaundice; no albumen in the urine, but a considerable anasarca. There had been an abdominal tumor owing to a rolling up, or a folding up of the omentum, also great pain in the abdomen. Disease of the liver was inferred by exclusion. Tumefaction of the abdomen had occurred, and the water was drawn off by the trochar.

2d. A sequestrum, which he had excised from the head of the femur of a little patient, *æt.* 4 years, who was suffering from coxalgia. The operation was performed 8 days before, and the little patient is now quite comfortable. The Doctor thought such operations were too often delayed too long.

3d. Pathological specimens from a patient in City and County Hospital. There had been hæmoptysis and œdema of the extremities. The antopsy showed enlargment of the heart, but no disease of its valves; there was an atheromatous condition of the aorta, which was constricted at the arch. And a well marked "nutmeg liver." The lungs were hardened and thickened; this condition might be mis-

taken for pneumonia, as there had been spitting of blood; it is however hypostatic infarction of the lungs, caused by inability on the part of the heart to impel the blood with sufficient rapidity.

Dr. Gibbons mentioned a case which he had lately seen, in the diagnosis of which, he had been completely misled by the stethoscope, and by auscultations. He had found a normal vesicular mumur of the lungs, and apparently a natural resonance of the walls of the chest. The patient died and the autopsy revealed complete tubercular infiltration of the lungs; there was absolutely no healthy lung tissue. He had examined the case in consultation with other physicians, otherwise he would believe that he had been mistaken as to the physical signs. He could not explain the reason for the false signs.

Dr. Bently spoke of a parallel case. The patient, a lady, had died during the night, without the knowledge of her husband, who was lying by her side, she had never complained during life of any symtoms indicating disease of the lungs. The *post-mortem* examination however, showed tuberculosis in its advanced stage. It is often difficult to reconcile pathology with psychological symptoms during life, and the effect of disease upon the brain is often very mysterious.

Our space will not admit of a more extended report of this interesting meeting. †

Proceedings of the Alameda County Medical Association.
OAKLAND, May 6, 1872.

Present: Dr. Van Wyck, President; Drs. Babcock, Bolton, Carr, Hanson, Kittredge, Jno. LeConte, Jos. LeConte, Pinkerton, Sherman.

The minutes of the last meeting were read and approved. The chairman of the Committee on Vital Statistics, Dr. Jno. LeConte, reported a plan for the guidance of the subcommittee on Meteorology, and earnestly urged care and great accuracy in the recording of all statistics by the various sub-committees, in order that the observations registered may be of the greatest value; otherwise all attempts at registry had better be abandoned. Dr. Bolton reported

a case of rupture of the uterus, followed by death at the end of a week. (A synopsis of this paper will be found in the proper department of this number.—ED.)

Dr. Sherman translated an interesting lecture delivered at Berlin, in February last, by Dr. F. Cohn, on "the relations of bacteria to contagion."

After a lengthy discussion on this subject, and the transaction of some business, the Association adjourned to 3rd June.

Lead Pipes.

We have received the following from Sacramento, and as it is of interest not only here, but wherever lead pipes are used, we gladly publish it:

Lead-poisoning from Composite Water Pipe—Statement of the Board of Health.—In the discharge of their duties, both officially and professionally, the Board of Health deem it incumbent on them to publish the following statement:

No less than seventeen cases of illness, presenting all the most unequivocal signs and symptoms of lead-poisoning, have come to our knowledge within the last month in this city. Most of these cases have partaken of the characteristics of slow, chronic poisoning, clearly diagnosticated in lead, from ordinary colic, by a blue line on the dental edge of the gums, whilst some of them have been suffering terribly for several months, previously to our becoming cognizant of the fact, with intense muscular pains and loss of power, more or less approximating paralysis—all of them occupying residences supplied with water from pipes made of a patent composite metal, advertised and known as a "sanitary water-pipe." It is here proper to remark, that the earlier symptoms of this affection are so obscure in their origin, and simulate so closely other diseases of the stomach and bowels, that physicians are frequently in doubt as to the true nature of the cause of suffering until sufficient time has elapsed to obtain positive signs of metallic poisoning—lead, which is the most easily dissolved metal in water, and

at the same time most poisonous in minute quantities, being a cumulative poison. In no single instance referred to above had the patient not been subjected to the action of the water served from the aforesaid composite metal pipe; and not a solitary case has been heard of in the whole city of symptoms, co-ordinate with those described, where the old lead pipe had been in use.

As soon as our suspicions became aroused as to the cause of suffering, directions were forthwith issued to discontinue the use of the water supplied by the composite pipe, when a steady and happy alleviation of the most urgently distressing symptoms—such as the dragging and twisting pain of the bowels, the obstinate constipation, and in the worst cases, vomiting—ensued. Under these circumstances a meeting of the Board of Health was called, and the whole matter confided to the hands of our Secretary, with a request that he would make such an investigation as the emergency rendered necessary, and report the result to the Board. We now beg leave to call attention to the following very satisfactory report which has been adopted by us, and which, it will be observed, not only confirms the correctness of the suspicions that were entertained, but also positively establishes the fact that the composite pipe in question is not only detrimental to the health of our citizens, but is also dangerous to life, and should under no conditions be employed in distributing the waters, at least of the Sacramento river.

(Signed.) I. E. Oatman, M.D., Prest.,
F. W. Hatch, M.D.,
W. R. Cluness, M.D.,
G. L. Simmons, M.D.,
Thos. M. Logan, M.D., Sec'y,
Board of Health.

REPORT OF THE SECRETARY OF THE BOARD OF HEALTH.

Gentlemen:—In compliance with your request relative to the matter of the late poisoning by the use of the composite water-pipe recently introduced into the city, I would report: That as a first and most important step in the inquiry I procured four samples of the suspected water, which had been allowed to remain from 12 to 24 hours in the service-pipes of the houses in which the cases of illness had occurred, and submitted them to J. F. Rudolph for chemical examination and qualitative analysis. The result will be found in the following letter:

Dr. T. M. Logan, Secretary of the Board of Health:

The four (4) samples of water drawn through *composite* pipe and supposed to have caused lead poisoning in those who had used it, were examined in the manner given below. The evidences of lead were clear, a quantity being obtained equivalent to one-quarter ($\frac{1}{4}$) of a grain of the metal to the gallon of water; of arsenic a mere trace only was had; of antimony the same may be said.

The different samples were similar in appearance, resembling partially settled water, being somewhat milky or opalescent.

As no precipitate was had with hydrochloric or sulphuric acids, or iod. potass, a portion of each sample was separately concentrated by evaporation, acidified with nitric acid, and evaporated to dryness. The residue was dissolved in a small quantity of same water and tested one portion with sulphuric acid and another with iod. potass, obtaining in every case abundant evidences of lead. In one instance a repetition of the process was had with two (2) ounces of water, with similar results.

From two (2) pints of water one eighth ($\frac{1}{8}$) of a grain of iodide of lead was obtained, equivalent to one half ($\frac{1}{2}$) grain to the gallon of water; as the iodide contains about 45 per cent. of lead, it would indicate one fourth ($\frac{1}{4}$) grain of the metal taken up by that quantity of water (one gallon).

A portion of water was drawn from the office hydrant (which pipe—lead—has been in service about eight (8) years) and subjected to the same process without finding the slightest trace of lead impregnation.

On reporting the above, you requested me to seek for evidences of arsenic and antimony. Sixteen (16) ounces of water were concentrated to two (2) ounces by evaporation, digested with sulphuret of potassium, filtered, the filtrate diluted and boiled with excess of acetic acid. The precipitate from the acetic acid was well washed, mixed with nitre and carb. soda, dried and carefully fused, digested with hot water, filtered; nitric acid added to slight excess, and heated. Nitrate of silver was then added, and when cool, filtered, poured into a test tube, and dilute ammonia carefully dropped on the surface of the liquid, then set aside, after some time showing a very slight brownish-red precipitate, indicating arsenic. J. F. RUDOLPH.

Sacramento, April 8th, 1872.

It will be seen from this searching investigation that while a remarkable quantity of lead was found in the water taken from the composite pipe—a quantity amply sufficient

to produce the most pernicious effects of lead-poisoning, inasmuch as the one hundredth of a grain of lead to the gallon has been known to produce palsy in persons who habitually drank it*—no trace whatever of lead impregnation was discovered in the water drawn from the old pipe, which had been eight years in use in the laboratory. Without going any further we have here abundant confirmation of the suspected cause of illness, and evidence abundantly sufficient to condemn and interdict, as destructive to human life, the use of the composite pipe for the distribution of the Sacramento river water. Whether water from other sources will produce the same resultant effects is a question which remains to be solved. Pushing the investigation farther, I find, on examination of the two different pipes themselves, from which the water that was examined had been obtained: First—That in the old lead pipe, from which the water that contained no traces of lead was procured, there was found a closely adherent and very thin film—the sulphate of lead—deposited uniformly upon the inner surface of the pipe. This observation is not a new one, but has often been made before, respecting other river water, the minute quantities of salines almost invariably present protecting the lead from further chemical action; whereas, if the water be perfectly pure, it soon becomes impregnated with lead. Second—That in the new composite pipe there was seen no such film of the sulphate of lead as found in the old pipe, but simply a loose deposit of river mud, on removing which, streaks of a blackened and slightly corroded surface were made apparent. In this latter fact is to be found the solution of the lead contamination and the deplorable effects that resulted therefrom. By water contact the galvanic action created by the dissimilar metals entering into the formation of the composite pipe, promotes corrosive action, and hence the water becomes poisonous. "Precisely the same evil is met with," states the Boston *Journal of Chemistry*, of July, 1868, "in the use of the metallic double-lined ice-water pitchers. The lining of these vessels is often made of dissimilar metals, and the parts joined together with solder, into which lead enters as a constituent. * * * Pure water acts much more energetically upon lead and other metals than the ordinary kinds; and hence the action is greatly promoted by the ice-water, which is very nearly as pure as that which is distilled."

*A celebrated case occurred in the royal family of France, at Claremont, where one third of the persons who drank of the water, which contained only one tenth of a grain of lead in a gallon, died.

With the knowledge of these data, on which to base an opinion, I have no hesitation in advising that we recommend that an ordinance be passed, prohibiting the laying down and further use of the composite metal pipe for the distribution of the Sacramento river water.

THOMAS M. LOGAN, M.D.,
Secretary Board of Health.

Sacramento, April 12th, 1872.

"Died May 13th, at Santa Barbara, Cal., EDWARD BARRY DALTON, M.D., of Boston, *æt.* 37 years."

This simple announcement of the death of Dr. Dalton will carry with it sincere grief to many a household, where perhaps, he was only known by name—from the fact of his memory being cherished by some one member who has experienced his tender care or professional aid, in the midst of bloody strife, and National, as well as in individual peril. While a decided feeling of loss and deep regret will be conveyed to all who knew him, either professionally or socially, in his family and the circle of his classmates, who have watched his career from the college halls, to this sad termination of a short, but most active and distinguished professional life—there will be a void never to be filled.

Dr. Dalton was born in Lowell, Mass., in 1835, and by his great individual talents and his comprehensive industry has added to the lustre of a name well known in the world of science. He graduated as A.B. at Harvard University in 1854; as M.D. at the College of Physicians and Surgeons, New York, in 1858, at which time his thesis on Morbus Addisoni was published by the Faculty, and attracted much attention from the medical profession, he then served as House Physician in Bellevue and St. Luke's hospitals, till the breaking out of the rebellion.

One of the very first to respond to his country's call, he left New York as surgeon of the 8th N. Y. S. M., serving three months, then as surgeon of the U. S. S. Quaker City, and afterwards, when surgeon of the 36th N. Y. S. Vol., was appointed surgeon of the U. S. Vol., ranking as Lt. Col. and Medical Director, and at the close of the war as brevet Col. U. S. V. During this whole period, Dr. Dalton was constantly in active service, either in the field, or in charge of important medical departments.

His peculiarly great administrative abilities when thus brought into play, and were fully demonstrated by his successes in establishing the "Flying Hospitals*," moving large masses of wounded men, completely organizing all the branches of his department out of the most demoralized elements, and so gaining the very enviable record which he has just ended with his life.

After the close of the war, Dr. Dalton resigning from the army went to New York, and was selected from a great number of applicants, as Sanitary Superintendent of the New York Board of Health, a position of great responsibility and almost arbitrary power, in which office he created a host of warm friends and admirers, and filled his difficult duties with great tact, and to the satisfaction, not only of the medical profession, but the general community.

In 1868, the effects of hard service and exposure to malarial poison, together with sudden family bereavements, so told upon his health, that he was obliged to leave a most flattering field of labor for Europe, in search of rest for mind and body. Returning to Boston, he commenced private practice and found that his services in his country's behalf had been so fully appreciated, that his reputation and professional status were at once established, as he was elected one of the visiting physicians to the Massachusetts General Hospital, a position esteemed the very acme of professional work in that commonwealth.

In each and all of these prominent positions, Dr. Dalton's

*The Depot Field Hospital, established by Dr. Dalton at City Point, contained 20,000 beds, and he had over 8,000 patients under his charge at one time, at that place.

great and cultivated talents not only excited admiration, but his courtesy and just administration, endeared him personally to all with whom he was brought in contact.

In the autumn of 1871, Dr. Dalton came to California, on account of failing health, in hopes of deriving benefit from its *vaunted* climate, and finally settled down in Santa Barbara, as the place best adapted to his condition: here he passed away on Monday evening, May 13th, attended by members of his family and some devoted friends.

Truly may it be said of him, "Well done, thou good and faithful servant; thou hast been faithful over a few things, I will make thee ruler over many things; enter thou into the joy of thy Lord." J. T. C.

Surgeon JOHN S. KITCHEN, U. S. Navy, died in Philadelphia, on the 8th inst., *æt.* 41 years. Dr. K. entered the navy May 1st, 1855, and entered upon his duties the same year on board the U. S. ship St. Louis, and was on the coast of Africa until 1858. Subsequently he was attached to the steam frigate Wabash, the flag-ship of the Mediterranean squadron, and returned home in 1859 to be promoted to Passed Assistant-Surgeon, after which he was stationed at the Chelsea Naval Hospital. Dr. Kitchen was commissioned a Surgeon in August, 1861, and ordered to the steamer Pocahontas. During 1862 and 1863 he was attached to the flag-ship of the North Atlantic blockading squadron, and in 1864 and 1865 was on board the steam sloop Sacramento. After serving at the Naval Hospital at Port Royal, Naval Rendezvous at Boston, and on board the iron-clad Dictator in the Gulf of Mexico, he was ordered in 1870 as a member of the Naval Medical Board in session at the Naval Hospital in this city. At the close of the session he was ordered to the flag-ship California, and on arrival at San Francisco, to report as surgeon-in-charge of the Naval Hospital at Mare Island. On the voyage out, the Doctor showed signs of mental disturbance, and on his arrival here, was surveyed and placed on the retired list.

The deceased was highly respected as a skilful and faithful officer.

Dr. WILLIAM W. SANGER died on the morning of the 8th inst., in New York city. He was born on the 10th of August, 1819, at Canterbury, Conn., and after the study of medicine for five years, graduated at the College of Physicians and Surgeons in New York in 1847. He was the first appointed resident physician to Blackwell's Island, and the author of the "History of Prostitution." He has suffered severely for six months.

We are in receipt of the "*First printed report of the Secretary, attending Physician and Treasurer of the S. F. Lying-in Hospital and Foundling Asylum.* Feb. 15th, 1872." It is the intention of the trustees to forward a copy of this report to every medical man on the coast, and beg them to carefully peruse the document and by every means in their power to aid the noble work. It *is* a noble work, for it seeks to reclaim the fallen; by concealing her shame it gives her the only chance of recovering her social status; it saves her from the crime of homicide (in being party to an abortion), fœticide, infanticide or suicide; it rescues her from prostitution; it provides skilled care and nursing in her hour of peril; it is the means of saving the lives of the unfortunate children and providing them with good homes; it is, in short, a noble christian charity, free to all in their *first* misfortune, without regard to nationality or religion.

We regret to say that the institution does not receive the support it merits. Some people are too virtuous and christian to contribute or vote appropriations for it! They are like the Pharisee in the temple praying and in addition, as Beecher once remarked, "clasp their hands so tightly in prayer, that they can't get them open when the contribution box comes around." Medical men everywhere can aid in the Asylum's good work by sending there the unfortunates who apply to them for relief; it will keep them from abortionists. They can also explain the real merits of the charity to those possessing the means of enriching its treasury.

MONTHLY REPORT OF DEATHS IN THE CITY OF SAN FRAN-

By C. M. BATES, M.D., Health Officer. *No. of Deaths corresponding*

CAUSE OF DEATH.	Total	AGES.																SEX.	
		Under 1 year	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	Over 100	Unknown	Male	Female
I. ZYMOTIC.																			
Whooping Cough	5	3	2															3	2
Fever, Enteric or Typhoid	2					1		1										2	
Fever Intermittent	6		1						1	3	1							4	2
Erysipelas	2							1		1								1	1
Diarrhœa—Chronic	2								1									1	1
Cerebro-spinal Meningitis	3	1	1		1													1	2
Pyæmia	3							1		2								3	
Other diseases of this class	5	1		2	1					1								4	1
II. CONSTITUTIONAL.																			
Rheumatism	2						1			1								1	1
Cancer of Stomach	2										1	1						2	
Cancer of Uterus	1									1									1
Other diseases of this class	3								1	1	1							1	2
III. TUBERCULAR.																			
Scrofula	1			1														1	
Phthisis Pulmonalis	55					1	6	16	18	9	1							34	21
Hydrocephalus	3	2	1															2	1
IV. LOCAL.																			
Congestion of Brain	3		1						2									3	
Meningitis	6	1	2	2					1										3
Cerebritis	3	1				1				1								2	1
Apoplexy	3									1	2							3	
Paralysis—general	2										2							2	
Other diseases of this class	6	2						1		2	1							6	
V. CIRCULATORY SYSTEM.																			
Pericarditis	1								1									1	
Aneurism of the Aorta	3									1	2							3	
Valvular Disease of Heart	8								1	3	3	1						6	2
Dropsy of Heart	1							1										1	
Dropsy	1								1									1	
Heart Disease, undefined	10							1	2	3	1	2	1					5	5
Other diseases of this class	4							1	1	2								3	1
VI. RESPIRATORY SYSTEM.																			
Bronchitis—Acute	3	1	1	1														1	2
Bronchitis—Chronic	3								1		1		1					2	1
Pneumonia	15	7		2	1			2	1		2							12	3
Asthma	2								1				1					2	
Oedema of Lungs	6									2								2	
Other diseases of this class	4				1			1	2									4	
VII. DIGESTIVE SYSTEM.																			
Enteritis	4	2	1								1							3	1
Cholera Morbus	1							1											1
Peritonitis	2					1				1								1	1
Hepatitis	1									1								1	
Liver Disease	2									1		1						1	1
Gastro Euteritis	1												1						1
Other diseases of this class	7	3	2					1		1								4	3
VIII. URINARY SYSTEM.																			
Bright's Disease	3									3								3	
Other diseases of this class	4								1		1	1		1				3	1
IX. OLD AGE	1												1						1
X. NUTRITION.																			
Alcoholism	1									1								1	
Atrophy	10	8	1	1														7	3
Inanition	6	6																4	2
Debility	5	4											1					4	1
Syncope	1	1																	1
XI. ACCIDENTAL	4					1			3									3	1
Murder and Manslaughter	1								1										1
XII. SUICIDE	3								1	1	1							1	1
XIII. SYPHILIS	1								1										1
XIV. CAUSES NOT SPECIFIED OR ILL DEFINED	22						1	5	6	5	5							19	3
TOTALS	255	43	13	9	4	5	8	33	49	48	29	7	6	1				178	77
XVI. STILL BORN																		11	6
XVII. BIRTHS REPORTED																		40	35

CISCO, CALIFORNIA, FOR THE MONTH OF APRIL, 1872.

Month of 1866, 203; 1867, 187; 1868, 193; 1869, 286; 1870, 261; 1871, 232.

RACE.			WARD.															NATIVITIES.			
Caucasian	Mongolian	African	1st Ward	2d Ward	3d Ward	4th Ward	5th Ward	6th Ward	7th Ward	8th Ward	9th Ward	10th Ward	11th Ward	12th Ward	Public Institutions	Casualties	Suicides	F'rgnCo'nr's	Atlantic U. S.	Pacific U. S.	Unascertained
5				1								2	1	1						5	
2			1						1									1	1		
	6			1	1	2		1						1				5		1	
2												1		1				1	1		
2							1								1			1	1		
3			1									2								3	
3															3			3			
4	1					2				1	1		1					1		4	
2			1										1					1		1	
2												1			1			2			
1						1												1			
3												1	1		1			3			
1															4					1	
43	11	1		1	1	12		4	1	6	1	3	6	6	14			33	18	4	
3												1			2					3	
3										1		1	1					1	1	1	
6												3	2		1			1	1	4	
3				1								1		1				1		2	
3						1						1			1			1	2		
2															2			1	1		
6							1		1		1				3			3	1	2	
1						1													1		
3			1												2			2	1		
7		1						1	1	1		1	1		8			6	2		
1									1									1			
1												1						1			
9		1	1				1	1	1			2	3	1				5	5		
3	1			1				1	1			1						3	1		
3												1	1	1						3	
3										2					1			3			
15				1		1	1			1	1	2	3	2	3			5	1	9	
2											1		1					1	1		
1		1								1					1			1	1		
4									1			1			2			2	1	1	
4									1		1			2				1		3	
1												1						1			
2										2								1	1		
1												1						1			
2				1										1				2			
1														1				1			
7						1				1		2	1	1	1			2		5	
2		1										1			2			2	1		
4				1									1	1	1			4			
1						1												1			
1				1															1		
10			1	2		1			1			2	1		2					10	
5		1										1		1	1	3				6	
5								1				2			1	1		1		4	
1													1							1	
3	1															4		2	1	1	
1																1			1		
3																	3	1			2
	1					1												1			
1	20	1	1	2	1	14		3							1			21	1		
207	41	7	7	13	3	38	4	12	10	16	11	33	25	24	51	5	3	132	47	74	2
17																					
75																					

A HAND BOOK OF THERAPEUTICS. By Sidney Ringer, M. D., Professor of Therapeutics in University College; Physician to the University College Hospital. Second Edition. New York: William Wood & Co. 1871. For sale by A. L. Bancroft & Co., San Francisco.

The first edition of Dr. Ringer's excellent and valuable book was presented to the profession in 1870. We are pleased to announce a new edition, and congratulate the author that so favorable a judgment has been passed on his work by the profession as to require a new one at so early a date. Comparing the present edition with the first, we find this one not merely a reprint, but observe throughout the entire volume the trace of a revising hand. Many portions have been entirely re-written, and considerable new matter incorporated therein. The general arrangement is the same as in the previous imprint; and the additions are essentially of a practical character. We notice among the subjects now treated of for the first time an article on hydrate of chloral. The author has selected every thing of substantial value among the recent advances in therapeutics. It is a practical book, replete with interesting and reliable information, and will be found to be one which can be consulted by the practitioner with much benefit. We would advise every young physician to procure and read the book. It fills all the author claims for it in letter and spirit, and is written in such a clear and simple style that all who read it will do so with pleasure.

THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR JUNE, 1872.

Surgery.

ART. I.—*Report of Autopsies performed at the City and County Hospital, San Francisco.* By F. H. ENGELS, M.D.

No. 1. M. D., *æt.* 28, native of Ireland, laborer, admitted Aug. 20th, 1870, presenting the following symptoms:

Directly over the symphysis pubium a hard swelling was found of the size of a fist, extending towards the right ligamentum Poupartii; it could also be noticed extending deep into the pelvis, by pressure above and below the ligament, and had several fistulous openings, some above the symphysis, some above and below the ligament. Another hard tumor, also having several openings, was situated on his back directly below the last ribs of the right side. None of the sinus admitted a probe deeper than about ½". The general health was much impaired; he had a cachectic appearance, and, on examination, the presence of tuberculoses pulmonum in an advanced stage was recognized. The other disease was diagnosticated as caries of the spine with psoas abscess. Death occurred Nov. 21st, 1870. Autopsy 18 hours *post-mortem;* body greatly emaciated; pupils normal; rigor mortis firm. Head was not opened. Both lungs were firmly adherent by old pleuritic bands; in the right side about 3 pints of effusion was found, while both lungs were completely filled with tubercles, but no cavities were discovered; heart and aorta healthy; pericardium contained

about 3 oz. effusion, and *ante-mortem* clots were found in both sides of the heart; liver very large and hardened, weight 4 lbs. 9 oz.; spleen fatty, weight 8½ oz.; left kidney highly congested; a great quantity of fat deposited in the pelvic cavity; right kidney and adjoining tissues firmly adherent to psoas muscle and adbominal walls. On careful dissection the place of the kidney was found to be occupied by a large abscess, having absorbed the kidney, and communicating by tortuous sinus with the openings situated at the back; the vertebræ, including arches and processes, were found carious from the 8th dorsal vertebra to the sacrum; the psoas muscle was infiltrated with pus, presenting a collection of numerous small abscesses covered by the sheath of the muscle, and finally pointing towards the tumor, with fistulæ over the symphysis; the intestines were almost completely displaced towards the left, by the enlargement of the muscle on the right ride; both legs were covered with old, evidently specific, cicatrices, but the patient had always firmly denied ever having had syphilis.

No. 2. R. J., *æt.* 48, native of Virginia, clerk, admitted Sept. 16th, 1869, with a severe stricture of the urethra, so much so, that it would scarcely allow the passage of the finest whalebone sound. Fistulous openings had formed in the perinæum, through which the urine escaped. Several surgeons had at different times attempted to close the fistulæ after succeeding in dilating the stricture a little, but as the stricture invariably contracted to its former size, the fistulæ would reappear in consequence, and no permanent cure could be effected. The stricture was finally dilated to the size of No. 3 steel sound, the fistulæ remaining open as before. Several times during the 2½ years of his stay at the hospital he was confined to his bed for months together, given us as hopeless, but each time he rallied. About Jan. 1st, 1872, he was attacked by a burning sensation in the stomach that soon produced a vomiting which proved absolutely uncontrollable, and for 13 days prior to his death he took no food except a small quantity of ice cream and a few "ice pills;" anything else was rejected instantly. The vomited matter was dark-colored, mixed with much bile and occasionally even stercoraceous. Death ensued Jan. 21st, 1872. Autopsy 10½ hours *post-mortem*. Rigor slight; pupils dilated; body excessively emaciated. Head not opened. No adhesions on either side of thorax; lungs absolutely healthy; heart contained *ante-mortem* clots in right side; left side empty and contracted; valves healthy; liver hardened, waxy, adherent firmly at lower posterior margin of right lobe; gall-bladder full; spleen firmly attached to

the diaphragm by its thickened capsule, on sections healthy; kidneys both firmly attached to the different surrounding muscles and tissues, ureters likewise; the capsules of both kidneys much thickened; right kidney fibrous, contracted and cirrhosed; left in same condition, with addition of pyelitis and a collection of pus; bladder empty and firmly contracted. In fact every single organ in and near the pelvic cavity was attached firmly to the surrounding tissues and organs by strong and old adhesions, caused evidently by repeated attacks of pelvic cellulitis. Stomach contained about a pint of bilious fluid; its mucous membrane was inflamed, producing general gastritis, and the pyloric orifice was contracted firmly to the size of a small quill.

No. 3. K. G., *æt.* 22, born in New York, admitted Sept. 11th, 1871; pregnant. She was delivered of a healthy female child (her first one), Dec. 20th. Delay in the completion of the labor, which had so far been perfectly natural and easy, was caused by firm adhesions of the placenta to the fundus of the uterus, with strong hour-glass contraction. There was no hemorrhage, but finally, the placenta was removed by manual interference about 2½ hours after the birth of the child. The lochiæ did not appear in due time, and high fever, great thirst and tympanites set in within the next 2 or 3 days, hot poultices were ordered to the abdomen and produced eventually a slight but extremely offensive discharge. Poulticing, painting the abdomen with iodine, and leeching in the region of the ovaries, was continued alternately for four weeks, as she complained at various times of pain in different localities. From the time the pain in the left ovarian region commenced, the left lower extremity was numb, paralyzed as to sensation, although motion was unimpaired. Family trouble supervening, the patient first showed symptoms of deranged mind about Jan. 21st, '72, from which time she grew rapidly worse until her own and other patients' safety compelled her being confined in a straight-jacket for several nights—a raving maniac. In the intervals of her excitement a very low state of nervous prostration and fever was present; her eyes were rolled back; the mouth open; tongue dry and furred, covered with sordes; pulse firm, 120 to 140; profuse cold, clammy perspiration and pain over both ovaries. She would obstinately refuse to speak to or look at anybody, and sometimes spit medicine or food offered, into the nurse's face. Feb. 1st, a change for the worse took place; conjestive chills set in with tympanitis; very feeble but rapid pulse, 140 and more; symptoms of acute peritonitis, which produced death Feb. 2d. Autopsy 16 hours *post-mortem.* Body exceedingly

well formed and nourished; rigor firm; pupils dilated. During life the pupils had been widely dilated up to the time her mind became deranged; after that until death they were contracted to the size of a pin's head. Lungs and heart perfectly healthy; *ante-mortem* clots in both ventricles and auricles; liver normal; gall-bladder full; spleen rather small but healthy; kidneys, right one small, left one correspondingly large; rather pale and anæmic but not organically diseased. The rectum, ovaries and surrounding tissues were found firmly attached to each other; fresh lymph amounting to about 6 oz. filled the left side, and on pushing aside a fold of intestine an *abscess of the round ligament* was discovered; the size of this abscess was about that of a large egg; while enclosed in the ligament it had produced the inflammatory process which formed the adhesions of all the surrounding tissues, and finally opening simultaneously into the rectum and pelvic cavity, had caused the fatal peritonitis. The connective tissue between rectum and uterus, and more, even between vagina and perinæum, was found in a state approaching gangrene. The left ischiatic nerve passed so closely to the abscess that its sheath was bathed in the pus, explaining the numbness and partial paralysis of the corresponding extremity.

No. 4. G. J., *aet.* 23, native of Pennsylvania, by occupation a waiter, was admitted October 26th, 1870. Unable to find work in the city, he had set out on foot and traveled around in the country for over three months, unsuccessfully endeavoring to procure work, and returned to the city worn out and half starved. Shortness of breath, slight cough, and severe palpitations were prominent symptoms on admission; *left pupil very much dilated.* At the base of the heart, an aortic direct and reguritant murmur were found perceptible over a large surface, while no mitral murmurs could be detected. Headache, drowsiness, listlessness, and dullness of intellect remained constant, even after the general consequences of want and exposure had been relieved. The inequality of the size of the pupils, the weakened and frequently intermittent radial pulse of left side, a deep seated whistling sound, a purring thrill, and various systolic and dyastolic musical and bellows murmurs at the base, independent from the above mentioned *bruit* emanating from the aortic valves, together with frequent attacks of gnawing pains near the bifurcation of the bronchi, all these symptoms gave strong suspicion of aneurism of the ascending portion of the arch; still, the symptoms were not pronounced enough, and the general anaemic condition of the patient would speak for inorganic murmurs. About

middle of December, 1870, after a severe attack of headache, with vomiting, *hemiplegia of the left side* was found. Slight temporary improvement, and severe attacks of pain and suffering varied for months after this, until finally patient became comatose after premonitory headache and venous congestion of the upper part of the body, in which condition complete paralysis supervened, and patient died eighteen hours after the coma had commenced, June 18th, 1871. Autopsy twenty-two hours *post-mortem*. Rigor mortis slight; pupils *both* dilated; body slightly emaciated; œdema of lower extremities and left hand; brain and its membranes perfectly normal. No embolus, ossification of vessel or softened part, could be detected anywhere, only very slight effusion in lateral ventricles, and slight adhesions on posterior aspect of both lungs, which were otherwise perfectly healthy. A few bronchial glands were found enlarged. Heart and inner surface of pericardium showing signs of an inflammatory process in progress of reparation, the lymph resulting from the pericarditis being absorbed again, leaving only several "milk spots," and a parboiled appearance on the heart, also a thickened and rough condition of the pericardium. Large *ante-mortem* clots in right side; small clots of same kind, but great *dilatation and hypertrophy of left side*. Mitral, pulmonary, and tricuspid valves healthy; aortic valves covered with cauliflower vegetations and calcareous deposit; arch very much dilated, containing a number of atheromatous scales. Very near the heart, directly beyond the aortic valves, and yet inside of the pericardium, an *aneurism of the ascending aorta* of the size of a large walnut was discovered. Liver healthy; stomach highly inflamed; spleen and left kidney adhered by a cicatrix of an old abscess of the spleen. Right kidney healthy, but showing cicatrix of old abscess in it; pancreas congested; intestines and bladder normal.

No. 5. A. D., colored, *aet.* 26, native of Jamaica, laborer, admitted June 20th, 1871. Received a blow on the head, somewhere on the left side behind the ear, three years ago, and has suffered since then, more or less, from headache, nausea, and vomiting after eating, and seven attacks of spasmodic vertigo, during which he loses sight and hearing almost entirely. These two senses are considerably impaired since he received the injury, his sight being weak, hearing dull, and slow in comprehending. Tenderness on percussion was found on right temple, and left mastoid process. Pulse 62; tongue coated; bowels constipated. Has had syphilis ten years ago. Coma supervened July 13th, and death July 17th, 1871. Autopsy twenty-eight

hours *post-mortem*. Rigor mortis, firm; pupils dilated; body well nourished; temporal muscles very pale; dura mater turgid with blood, but longitudinal sinus containing neither blood nor clots; large quantity of effusion at base of brain. Between cerebellum and dura mater, near the left petrous part of temporal bone a quantity of pus was found covering the externally ulcerated surface of the cerebellum, while the interior of the cerebullum at that part, was softened and infiltrated with pus. Further on, at the junction of cerebellum and medulla oblongata, a small hard tumor was found, of the size of a large bean, containing a small piece of bone. Opposite this tumor, the dura mater was found thickened, and the inner table of the skull showed a slight deficiency of a piece broken out, in which the one inclosed in the tumor, fitted. Both hemispheres were congested, and the lateral ventricles contained a considerable amount of effusion. Slight adhesion on both sides of the thorax. Posteriorly, inferior part of both lungs congested by stasis, otherwise healthy. Pericardium contained 3 oz. effusion; heart normal; *ante-mortem* clots in right; *post-mortem* clots in left side; valves healthy; liver large, slightly fatty; spleen normal in size, but soft; kidneys granular; bladder full; intestines healthy.

No. 6. J. P., *aet.* 39, native of Sweden, longshoreman, admitted August 9th, 1871, with dysentry. On admission, he presented a cachectic appearance, dirty-yellowish countenance, conjunctiva slightly yellowish, clammy perspiration, frequent severe chills, and was passing from eight to twenty very offensive thin stools of a dirty-greenish color per day. A slight cough at first, without expectoration, changed after a time into one with greenish colored, very bitter tasting sputa, of offensive smell. Decided hectic fever was present every night and morning, and in the right hypochondrium, a large swelling was observed, extending down nearly to the crista ilii, and to the left as far as the median line, very painful to the touch, and giving indistinct deep seated fluctuation. Exploratory punctures were made, but either not deep enough, or not at the right spot to reach the collection of pus. Severe pain in right shoulder and side, often extending down the arm, was constantly complained of, and decided tympanites added to his sufferings, while he gradually became more and more emaciated. The diagnosis of *abscess of the liver* was made out without difficulty, but its exact location was a matter of some doubt. September 10th, he complained very much of pain in the abdomen, which was partially relieved by large doses of morphia, but since then he rapidly sank and

died comatose, Sept. 16th, 1871. Autopsy thirteen hours *post-mortem*. Rigor very slight; pupils dilated; body emaciated, and of a dirty-yellow color; head not opened; strong adhesions of the pleura on both sides; lungs and heart perfectly healthy. An incision in the abdominal walls liberated about a gallon of highly offensive, yellowish-brown liquid, apparently a mixture of pus and liquid fæces. The whole left lobe of the liver was excavated by a large abscess which had ruptured into the peritoneal cavity, but still contained two pints of thick flakey pus. The edges of the abscess were ragged, and the walls—the rest of the liver tissue very thin—right lobe of liver indurated and fatty, but comparatively healthy; spleen softened; kidneys "large white granular," but less diseased than might have been expected from the condition of the liver; bladder full. The opening of the abscess, and its spontaneous evacuation into the abdominal cavity, produced there an intense peritonitis, to which the effusion of pus—one gallon—is due. The same inflammatory process produced strong adhesions between the intestines, which were all distended to their fullest capacity by gas, and on different places presented signs of rapidly approaching gangrene. A very close examination failed to discover any perforation of intestine.

Institutes and Practice of Medicine.

ART. II.—*The Miasmatic Diseases of California.* By J. CAMPBELL SHORB, M. D., San Francisco.

[Continued from page 269.]

The Eternal City, from the time her history emerges from the twilight of fable up to the reign of the first Tarquin, was the home of a fever, which through the greater portion of the year raged with deadly violence. Even in those far distant and misty days the source of this distemper was thoroughly understood, and the peculiarities of the paroxysm accurately described.

Stretching from the base of the Capitoline Hill to the Tiber lay a large and deep morass, and in many places in the valleys between the hills on which the city was originally

built, were found swamps of greater or less extent, which, from their low position and proximity to the river, remained saturated with water in the dryest season, and where accumulated the large masses of water which were washed down from the sides of the several hills, during the prevalence of rain storms. In these swamps, on which was poured the scorching heat of the fierce Italian sun, was generated that concentrated poison which gave rise to that terrible form of fever celebrated alike in classic verse and prose. Until the time of the advent of Tarquin, no wise or comprehensive system was adopted, having in view the expulsion of the fever by the draining of the swamps.

Convinced of the certain origin of this disease—urged by the hope of securing the lasting gratitude of his subjects and adding new strength to his dynasty, Tarquin built the Cloaca Maxima, which still remain enduring monuments of his skill and wisdom. The swamps of Rome were drained by these mighty sewers, built under the very streets of the city, through which a large barge could float with facility. While these lasted, the fever disappeared almost entirely from Rome, and, except in isolated instances, was seen no more until the invasion of the barbarians, when the Cloaca were broken down or choked up, and the waters, holding in solution large quantities of decomposed filth, reappeared in those original sites. The pestilence then returned, characterized by the same symptoms and attended by the same fatal consequences which had been met and checked by the consummate wisdom of Tarquin.

In many respects our city here is not unlike the city of Rome. We have the hills, the swamps, and the valleys, essentially the same, and we learn from those who have enjoyed opportunities for comparison, that the climate of San Francisco, through some portions of the year, especially in those still, clear, warm, sunny periods following on our first rains, closely resembles the climate of Rome and its immediate surroundings. And here, too, we have a fever which in its origin and nature is identical with the Roman Fever of present or remote times; a fever which we believe would equal, perhaps surpass it in violence and malignancy, but for the wind which blows in from the ocean, carrying with it saline matter in such a subtle state of subdivision—a species of dry solution, if we be allowed the expression—whose tendency is to carry away, dilute, or purify the poisonous exhalations which are generated in many portions of our city. The wind, too, blowing from the Northern Ocean, from colder waters, keeps the temperature of our city, as a rule, below that standard at which rapid and extensive decom-

position is impossible, and the associate poisons are developed in less concentrated energies, and have a more circumscribed scope of influence.

We have now reached that portion of our treatise wherein will be considered that particular form of malarious disease which belongs especially to our city, and which comes under the daily observation of the majority of our practicing physicians. The importance of a thorough practical knowledge of this malady cannot be overrated. It is, *par excellence*, the disease of the town—the salient objective of three fifths of all our intelligently directed prescriptions. We find it everywhere, on the summit of the highest hill, and in the valley—we meet it in the establishments of the rich, and the wretched squalid tenements of the poor; in the old and in the young—no age, sex, race or color is protected from its visitations—no season enjoys an immunity—no temperature, high or low, seems to exert any manifest controlling influence. Whether we regard the violence with which it occasionally presents itself, the range and severity of complications associated with it, and the occult way which at times it gains mastery of the system, it is a morbid process of singular and absorbing interest—having the highest claims upon our consideration and attention. Success here as practitioners of medicine will be accurately measured by the manner in which we individually respond to the necessity of cultivating an intimate acquaintance with the symptoms and treatment of this omnipresent malady.

It may belong either to the remittent or intermittent variety, but, as far as our experience is concerned, the greater number of cases present it in the remittent character. It manifests itself in all grades of violence, from a simple febricula, with slight constitutional disturbance, scarcely necessitating professional interference, and runs up through a great variety of phases, terminating in a form of disease as deadly and rapidly destructive as any that can appeal for aid to medicine. No one may know from its initative presentment what its future may be. We recollect a case which terminated fatally, in the beginning of 1867, which for three or four days showed no serious symptom. A sudden change took place, ominous symptoms supervened, and the little girl rapidly sank and died at the beginning of the sixth day. It is the part of wisdom, therefore, carefully to consider the means by which this disease may be aborted in its incipiency, and thus turned aside from the accomplishment of its destructive tendencies in the system.

We believe the means are within the acquisition of every intelligent physician. These are found scattered through

the various authors, American and European, who have written on the subject of the nature and the treatment of paludal disease; they are also found in the accumulated observations of physicians, who, residing here for a number of years, have noticed the peculiarities as they presented themselves, of the various forms of miasmatic disease, and recorded in medical papers the outlines of the treatment which best fulfilled the several indications.

We have been in the habit of speaking of this morbid process as the "Town Fever." The term is not a scientific one, nor does it convey any clear idea in reference to the origin and nature of the malady; but it is convenient, and saves a deal of time,—obviating the necessity of elaborate explanation incurred by the physician on his declaration that the case then treated was one of miasmatic disease, or intermittent fever. It is a term, however, as suggestive as the Roman Fever, which has passed into medical literature, and been sanctioned by common usage for centuries.

We have spoken of the extensive range of this morbid process. While no locality seems entirely protected from its visitation, there are certain sites where it is very prevalent; and here, too, the disease occurs in all its violence and malignancy. In these very sites, we may incidently remark, other diseases wherein there is no suspicion of miasmatic complication, such as the different typhoid processes, rubeola, scarlatina, diphtheria, the various inflammatory affections of the pulmonary apparatus, and the intestinal tract, and rheumatism, are more severe and intractable than found, all things equal, in other localitics.

The whole southern sweep of our city—all the space, with the exception of Rincon Hill, bounded on the north by Market street, on the east by the waters of the Bay, and on the west by Ninth street—then that portion of the Mission enclosed by Valencia street, Eighteenth street, the Bay and Eleventh street—and, finally, that fraction of the city known as Hayes' Valley, are especially the localities in which the Town Fever is both prevalent and severe. There are other less circumscribed spaces in which it seems to have a permanent residence, but these are found irregularly scattered over the city, and it were waste of time to attempt to define them all. As a rule, we may expect this form of fever in the vicinity of pools of standing water; or where buildings have been erected on sand covering the sites of old pools; wherever the land is made, or occupies such a low position wherein for an indefinite period the washings from the adjacent hills may remain until the sun's rays, the desic-

cating influence of the prevailing winds, the slight inclination of the soil, defective draining, or some equally slow and pernicious process have removed them.

Every now and then, in a perfectly healthy locality, where examination, no matter how carefully conducted, fails to reveal any general or palpable cause, there may occur one or two isolated cases of this fever. Its presence under such circumstances can generally be explained either by the fact that the seeds of the disease were received in some other locality, or some temporary defect in the sewer or drains attached to the house have caused the retention of filth or decomposed material, the exhalations of which have poisoned the atmosphere probably of sleeping apartments, and thus caused disease.

The rapidity with which disease follows an exposure to such morbific emanation is at times incredibly short; and the necessity of carefully and persistently watching the drainage of a house or neighborhood is of vital importance. A day's delay where a defect is noticed, may be fraught with mischievous and fatal consequences. This Town Fever will probably remain the most important feature of the morbid processes we shall be called upon to meet—making undertakers rich and our cemeteries populous, until the authorities to whom the care of the public health is entrusted shall realize the obligations of their high office, and respond to the necessities of the times, carrying into execution some such wise suggestions as were splendidly outlined in the very excellent article of Dr. Stout, of our city, in the October, '68, number of the *Gazette*, on the subject of the sewerage of San Francisco. We firmly believe San Francisco possesses such physical advantages as would insure her being the healthiest city of the world, without an exception, if the little which nature has left undone be completed by ourselves; if the authorities, urged by us, would take hold of the town regardless of expense, as Tarquin of old did of Rome, and build cloaca, such as would secure to us the results so perfectly accomplished by similar institutions built thousands of years ago, and which with all our progress we have never been able to equal, much less improve.

We hold it a doctrine, endorsed by common sense and every feeling of practical comprehensive philanthropy, that the public health is a question which should take precedence of all other considerations, having in view the material and lasting improvement of a city; and though none may be so bold as to join issue with us in this proposition, we contend that the teaching of experience here is clear and unmistaka-

ble, and that there is no question more shamefully neglected or criminally ignored. Before fabulous amounts of money are expended in gardens, parks and drives, which are after all more ornamental than useful, we ask that the problem, whose objective is the methods by which the public health is secured and maintained, should be first satisfactorily solved. A healthy, thriving population, from whose shoulders our exertions now will have lifted the heavy burden of taxation, presented in the shape of doctor's bills and medicines, funeral fees and cemetery expenses, will attend without doubt to the ornamentation of our city; for that alone will be left for them to accomplish; they will build for themselves and their children places of public resort and amusement, such as are found in the older cities of the world.

But this is a question with whose solution we of right have nothing to do—it belongs to the future, to which we leave it. We who live in and deal with the present, stand face to face with solemn responsibilities, which must be squarely met; while the public health remains jeopardized by the existence of such evils as are within the scope of our influence to remedy or remove, silence or carelessness on our part involves a recreancy to duty essentially criminal; we, who from our professional studies are the natural and qualified guard of public opinions in such matters, must never relax our exertions until, by forcible, comprehensive and authoritative appeals to the common sense of our people, collective health is secured and guaranteed by such public improvements as will stand the test of time and experience uninjured.

In all ages of the world, or at least beginning at that distant period in which history, sacred or profane, first takes cognizance of the rites of sepulture, we know that honors have been paid to the dead. Death hushes the tongue of slanderous calumniation; invective grows silent, and passion and prejudice perish with their object. Abuse of the dead has always been, and is now held in merited abhorrence, as an act at once irreverent and indecent; and the maxim "De mortuis nil nisi bonum," which has become so famous, was after all but the expression of a sentiment long before felt in secret by humanity, and which will last loved and cherished, until the destiny of the planet shall have been thoroughly accomplished. Useful, instructive and proper as are the memorial monuments of the dead, beautiful as is the desire of friendship or affection to make the enduring marble the eloquent expositor of the virtues of heroic men and noble women who have passed from our midst, it seems

to us the city of the living has often been sacrificed for the the city of the dead. The father of two children, one of whom has been lost by a neglect of the hygiene of his home and surroundings, if straitened in circumstances, should first attend to having a sewer built, a drain dug, and the general causes of disease removed, that the life of his surviving child might not be sacrificed, before he builds a monument over the remains of that child which is beyond the power of time or fortune to injure—exempt from all the accidents of mortality.

We therefore earnestly ask that the vast sums which are injudiciously but not improperly expended to beautify and adorn the city of the dead—even the money which is used to build fashionable temples of worship, or ornamental drives and parks—we ask, in a word, that the wealth which is lavished for ornament, should be devoted to the better purpose of securing the public health. Eighteen years ago this city was an insignificant village; it is still in its infancy, having, however, the strength and energy of a giant. Twice has it risen from the ashes of a general conflagration, and taking inspiration from disaster, it is fast approaching a position which the wildest enthusiast never predicted for it.

The time has not yet arrived for us to dream of making parks. It is within the last ten years that old New York interested itself in this direction. Our plain and manifest duty is first to have a healthy city, by leaving nothing undone to remedy the errors inseparably connected with such rapid growth and expansion as we have witnessed here. We do not ask for cloaca of such massiveness and size as Tarquin built for Rome, but we do ask for the adoption of such public measures as will relieve our city from the poisonous exhalations which defective sewerage allows to be generated and carried by the winds to every portion of the town. Then, and not till then, may our thoughts be directed to the embellishment of our city.

[TO BE CONTINUED.]

ART. III.—*Adeno-Sarcoma of the Colon.* By W. S. THORNE, M.D., San José.

On April 2d, I visited J. S., a former resident of Chicago, Ill. Twenty-one years ago he received an injury of the back by a fall while descending the steps of his residence;

has been an invalid, more or less, for ten years, and at times paraplegia and suffering from retention (dribbling) of the urine. He was treated for "spinal disease" by eminent surgeons East, and more recently in San Francisco. The bowels at times are obstinately constipated. He served in the late war, where he contracted dysentery from which he did not recover for three or four years. For several years he has suffered from periodical attacks of severe pain, always referred to the region of the heart. Has resided recently in Utah; habits for the past few years irregular. The patient entered the room unaided, but the movements of the limbs were hurried, forcible and uncertain as in locomotor ataxia. He has been a powerful square-shouldered man, but the figure is now gaunt and the face sallow; pulse 103; temp. apparently normal; complained of pain, referred to bladder and kidneys; bowels had not moved for 48 hours; felt unusually well the day before, and eat a hearty dinner at 6 P. M.; abdomen flaccid and tolerated free manipulation. He was not certain whether he passed water on that day or not, but did not feel the necessity for it. There was no vesical fullness apparent. He complained of nausea and retched occasionally. I introduced a No. 9 gum catheter and drew off five or six ounces of very offensive urine, after which he experienced relief. I left the patient with directions to remain quiet until my return. One hour and a half after I found him in bed retching violently, ejecting at times a little mucous. Examination of the urine obtained at noon showed specific gravity 1010, acid, slightly albuminous, with a strong offensive odor, but not ammoniacal; the microscope revealed abundant glandular epithelium from convoluted tubes, and some bladder mucus.

From my data I concluded that the patient suffered from uræmic poisoning, cause—desquamative nephritis, and I accordingly ordered ℞. Pulv. Digital., grs. iv; Ext. Elaterii, grs. ij; *M.*; to be made into eight pills, one to be taken every second hour; applied fomentations of fol. digital. to the pubes, and hot fomentations to the lumbar region; retching continued almost incessantly, and the pills were not retained. I then ordered a gastric sedative containing

acid hydrocyan. dil., and soda bicarb. in infus. gentian, and pounded ice, *ad lib.*, which quieted this distressing symptom somewhat, and resumed the pills as before. At 11 P. M. all of the pills had been taken, none of which had been retained more than two hours, and then ejected in an imperfectly dissolved state. An enema of turpentine and oil was administered meanwhile, but without effect. At midnight, patient's pulse very feeble, 120; skin cool and bathed in profuse perspiration; thirst urgent; great jactitation; frequent desire to go to stool, and a pinched and Hippocratic face; no urine had been passed at this time, and I again drew off six ounces, offensive as before. At 12½ A. M., in consultation with a medical friend, 5 minims Ol. Tiglii was ordered in enema, to be followed if necessary, by its internal exhibition. Five minims were given by the mouth within the two succeeding hours, without avail. A severe chill supervened at 1 A. M., after which his unfavorable symptoms were greatly exaggerated. Believing all purgatives now useless, I exhibited an opiate to relieve, if possible, his intense suffering, and so far succeeded, that at 4 A. M. he was able to dictate very composedly a codicil to his will. He sank rapidly from this time, and death occurred at 6.30 A. M. The intellect was clear and unaffected until three or four minutes before death, when the face and brow became suffused with a livid hue and he passed into a lively delirium, expressing in a loud, clear voice several wild and incoherent remarks. The abdomen at death was slightly distended, but not tympanitic. On subsequent section and examination, the peritonœum exhibited inflamed patches and recently effused lymph. Inspection of the intestines revealed at the hepatic flexure of the colon an indurated mass of tissue two or three inches in extent along the lower border of the intestine and closely adherent to the posterior wall of the abdomen. Through this mass a free opening one sixth of an inch in diameter was found, communicating with the cavity of the bowel. The peritoneal extremity of the sinus was surrounded by an ulcerated areola. The caliber of the colon at this point had not been materially encroached upon by the neoplasm. It was en-

tirely empty save the presence of a few raisin seeds. The small intestines contained some fæcal matter. Several ounces of pus were found in the peritoneal cavity. The microscopical appearance of the neoplasm renders it highly probable that it was an example of adeno-sarcoma, the cancerous proliferation starting in one of the large glands (solitary) of the colon. The normal cylindrical cells were much enlarged and elongated, and the interstitial connective tissue was abundantly infiltrated with rounded cells. The neoplasm, including the hypertrophied intestinal walls, was three fourths of an inch thick.

The interesting features of the case are: The probable relation of the dorsal injury and the chronic dysentery to the malignant growth as predisposing and exciting causes. *Second*, the masked character of the intestinal lesion until a few hours before death; the initial symptoms and the microscopical appearance of the urine, pointing more or less clearly to the kidneys as the seat of lesion. *Third*, the advanced stage of ulceration of the bowel, which appears to have caused no disturbance until eighteen hours before death, and which it would seem must have existed long prior to that event.

ART. IV.—"*San Rafael Clinique.*"

Two cases of poisoning by Sulphate of Morphia—the one case showing how small a dose may nearly cause death; the other, how large a quantity may, under certain circumstances, be taken with comparative impunity—the treatment contrasting the old method of stimulation and artificial breathing with the more modern one of the use of Belladonna or Atropia.

Case I. In December, 1861, while stationed in Washington, D. C., I was called to see a patient in the Columbia College Hospital, suffering from severe colic while convalescent from typhoid fever. I had, previously to this time,

used the hypodermic syringe with much satisfaction in a large number of cases of partial sunstroke, accompanied with vomiting and severe purging, as well as in a number of other diseases; and in all, the relief was so instantaneous and the method of medication was so well adapted to field-service, that I constantly brought it to the notice of such friends as were serving with troops. On this occasion, several surgeons were invited to accompany me to the ward, I assuring them that I would relieve the severe pain of the colic, and show them, by the contracted state of the pupils, that the patient was under the full effects of the morphia within five minutes after the injection had been given. Finding nothing in the case to contraindicate the use of morphia, one third of a grain was injected, and, in the promised time, all my predictions were fulfilled. In twenty minutes the man was reported as fast asleep and breathing heavily; in half an hour the attendant reported his breathing very slow and, on examination, he was found fully narcotized. Believing from the small quantity of morphia given that the effects would soon pass off, I ordered an injection of strong coffee and turpentine, and that the attendant should keep him roused, reporting his condition every half hour. At about 9 P. M., some two hours after the injection had been given, the attendant reported that he could not keep him awake; I returned to his bedside and remained for the next seven hours. His breathing was about 7, and pulse about 45, both decreasing in frequency and force, until I could no longer feel the latter either in the wrist or neck, and the former had fallen to five inspirations in two minutes—the lowest, so far as I know on record, in which recovery has taken place. The plan of treatment which was followed, had for its object to keep up the circulation and aeration of the blood by artificial respiration, to excite the nerve centers by stimulants, such as strong mustard to the spine, with turpentine and coffee by the rectum, and by alternate applications of hot and cold cloths to the chest, to keep the patient aroused to some extent. The now almost insensible patient was placed on a board between two chairs, and artificial breathing kept up by direct pressure on the chest, which was then allowed to expand; hot and cold cloths were quickly applied alternately to each side, with the effect of producing a spasmodic inspiration; the whole length of the spine was covered by a long narrow poultice of cracked mustard, and occasional injections of turpentine and strong coffee were given. Dr. A. coming to my assistance, opened the veins in either arm, with the idea that the loss of a little blood might have the effect of restoring the circulation, but

not over a few drops could be obtained. After some four or five hours of continued vicarious breathing, the heart sounds at one time almost imperceptible, became more distinct, and the respiration freer, until finally we had the pleasure of witnessing his complete recovery.

Contrast this case with the following:

Case II. Early in last year I was called to see a man who had been picked up on the high road apparently insensible and in a dying condition. On examination I recognized him. The previous evening a man had called at the office, apparently intoxicated, and had showed me a bottle, from which some 20 grains of morphia had been taken, remarking at the time that he did not intend to live. I had tried to get the bottle away from him and to induce him to take a dose of belladonna, but without success. After detaining him some time and finding him apparently sober enough to take care of himself, I forced upon him some ammonia, in which was belladonna, and obtaining his promise to return to his hotel, allowed him to leave. My present patient was the visitor of the previous evening, and when found was almost insensible, having lain out the entire night. At the time of being called, he was in a state of delirium, raving wildly and suffering apparently great pain from inability to pass urine—the pupils contracted to the size of the head of a pin, and the pulse was very feeble, but rapid. He afterward stated that on leaving the office he had taken an entire drachm of morphia in addition to that previously taken, thus making the total amount upwards of 80 grains. This amount I believe he really did take. Heat, stimulants and friction had restored him to consciousness. A catheter was passed and some two quarts of urine drawn off; a small quantity of strong coffee was given, but it was almost impossible to make him swallow; Tr. Belladon. ʒj was injected hypodermically; and, finding that there was no evidence of his having vomited, a powerful emetic was administered, but without producing emesis. I then ordered Tr. Belladon. ʒj to be given every hour, and as much strong coffee and soups as he could be induced to take. After he had taken an ounce of the belladonna, his pupils commenced to dilate and some time afterwards he vomited and purged freely. Coffee, with small doses of whisky and ammonia, and thirty drop doses of the belladonna, were continued for the next two days, during which he had so far improved that he was able to be taken a considerable distance home and has since entirely recovered. The total amount of the Tr. Belladon. taken during his treatment was over two ounces.

In Case I, one-third of a grain reduced the respiration to five in two minutes, produced profound stupor, an almost total cessation of the circulation, and from the effects of the poison it required some seven hours of artificial respiration to restore to full consciousness, aided by stimulants and by every agency usually employed in these cases, with the exception of belladonna.

On the other hand, in Case II, upwards of 80 grains of morphia were taken, with the effect of producing delirium, followed by stupor, from which the patient was roused by stimulants and warmth, and the poison rendered inert by two ounces of the tincture of belladonna. So far as I could ascertain, the man in the latter case was entirely unused to morphia.

It is only necessary to recall two cases cited by Dr. Chapman in his work on Therapeutics, to understand how this (the tolerance of opium) might affect the question.

He relates one case in which a wine glass of the tincture of opium was taken repeatedly in the twenty-four hours; another, in which three pints were taken daily. I have been informed by a reliable apothecary that one of his customers has, in his presence, taken at a dose a dram of morphia, while it is not uncommon to find twelve, fifteen or more grains taken daily with impunity, in painful chronic affections. The use of belladonna or atropia I consider so reliable in counteracting the effects of opium and its salts, that in one case quite recently, in which a man had taken ten grains of the sulphate for the purpose of killing himself, I directed, after the stomach had been emptied by a dose of sulphate of zinc, Tr. Belladon. *gtt.* xxx, to be given every half hour, until the pupils were well dilated. Being at the time engaged in another case, I did not see the man, and yet felt under no anxiety on his account, so long as my directions were followed. I afterwards ascertained that he had quickly recovered. There is another use of belladonna and its salts in connection with the administration of opiates. It is not unfrequent to find persons who are unable to take the latter without very unpleasant after effects. It has been my habit, for a number of years, in these cases, to combine

a small quantity of belladonna with the opiate, and I find that it secures the desired action of the latter without its unpleasant effects. Frequently, in the hypodermic administration of morphia, I add a minute quantity of atropia ($\frac{1}{100}$ — $\frac{1}{60}$ of a grain), or of tincture of belladonna, though the latter occasionally causes slight smarting and ulceration at the point where it is injected, while the former does not. Since Case I occurred I have used the hypodermic method several thousands of times and have never had any serious effects follow, though I always feel safer if I have with me some preparation of belladonna suitable for injection. Occasionally I have observed narcotism produced from small doses, but the hypodermic use of atropia has always had the desired effect; nevertheless, I invariably watch the patient for some little time after injecting morphia.

In conclusion, I would earnestly protest against doses of a grain and upwards of the sulphate of morphia being given in this manner as a first dose, as being not only unnecessary, but dangerous, and calculated to bring this most useful method into disrepute, and I can accept of no evidence as to its harmlessness in the hands of those who practice it, when cases like that cited above are on record and may occur again.

Gynecology and Diseases of Children.

ART. V.—*Vaccination During Pregnancy—Results of Forty-eight Cases.* By EDWARD W. JAMESON, M.D., Resident Physician to Philadelphia Hospital.

The fact that some physicians entertain the opinion that it is improper to vaccinate pregnant women on account of inducing abortion or miscarriage, leads me to give the result of that operation as practised in the obstetrical wards of the Philadelphia Hospital.

Professor Charles D. Meigs, in his work, "*Women: her Diseases and Remedies,*" Philadelphia, 1859, p. 597, says:

"Pregnant women ought never to be vaccinated. This is a rule I advise you not to depart from even on the most urgent occasion. If a woman have been once vaccinated, and appeal to you to revaccinate her because there is a present variolous epidemic, I hope you will refuse to accede to her request. * * * * I have been the witness of dreadful distress from the operation. Eschew it, I entreat you."

This language, strong and confident as it is, has not restrained the resident physicians of the Philadelphia Hospital from vaccinating pregnant women during the past six months.

On the rapid increase of small-pox in this city last fall, all patients entering the hospital were vaccinated, and since the 1st of last October more than one hundred pregnant women have been revaccinated. The operation was done in the receiving-ward with the best virus that could be obtained, selected by Mr. Bender, apothecary to the hospital.

All the crusts looked typical, and were of first-class quality. Cross-barring was the favorite method of vaccinating with most of the physicians.

All the pregnant women in the hospital October 1st, 1871, were also revaccinated.

I am unable at this date to give exactly the whole number of cases, their condition at time of vaccination, etc., but can speak with positiveness from January 1st of this year. At that time I went on duty as resident accoucheur, and, with the assistance of my colleague, Dr. Harris, I was able to collect notes of forty-eight cases—all cases of revaccination; and in some of these the operation had already been performed twice. All the women were in apparent good health, varying in age from 17 to 30 years. I made two insertions in each case, on the same arm, below the deltoid muscle. Most of the patients showed fair cicatrices of previous vaccination in infancy. More than half of the forty-eight cases were advanced beyond five months in pregnancy.

The operation proved successful in all but thirteen cases, and in no case were any unusual symptoms manifested.

Some of the women suffered considerably with their arms, particularly one German woman advanced in pregnancy over seven months, whom I revaccinated with cowpox. Her arm was swollen from the shoulder to the wrist, and its surface covered with a diffused erysipelatous inflammation. She was delivered at full term of a fine boy. Her labor was natural in every respect. Since January 1st there have been some miscarriages, but they occurred in those in whom the revaccination proved unsuccessful.

These results may dispel the fears and anxieties of some practitioners, and prevent them from withholding from this class the only reliable preventive of small-pox. Our own experience confirms that of other observers.

Tanner, "*Signs and Diseases of Pregnancy*," sanctions the operation. Other prominent authors whom I have consulted—some eight or ten in number—say nothing about the subject.

Dr. Barnes, in the *British Medical Journal*, March 4th, 1871, urges the importance of vaccinating pregnant women if they are at all exposed to the epidemic influence of small-pox, for these reasons:

1. Pregnant women living under epidemic or zymotic influences are more prone to take the prevalent morbid poison than others.

2. Having taken a morbid poison, they are less liable to throw it off. Their excretory organs, charged with the double duty of purifying two organisms, are liable to break down under the burden.

3. The morbid poison then pursues its course into a system which is less able to resist its injurious action. Abortion and a most dangerous form of puerperal fever are very likely to follow. Against this there is certainly a danger of producing abortion by vaccinating a pregnant woman; but this, Dr. Barnes thinks occurs only in women in whom a miscarriage is imminent.

In the London *Lancet*, February 3d, 1872, George Yarrow, a public vaccinator, speaks of having notes of twenty cases of pregnant women which he has revaccinated, and remarks that he must have vaccinated many more, and never hesitates to perform the operation. He refused to vaccinate in but one case, and she habitually aborted.—*Philadelphia Medical Times*, 1*st June*.

Ophthalmology and Otology.

ART. VI.—*Why should Spectacles be prescribed as Therapeutic Agents?* By WM. F. SMITH, M.D., San Francisco.

Since the great majority of persons expect to wear spectacles at some period of their lives, as certainly as they expect to grow old, the question—*Why do we wear spectacles?*

placed at the head of a few able articles in the *Atlantic Monthly*, written by a distinguished oculist, naturally excited sufficient curiosity to insure for them a very extended reading. Certainly the medical profession share the interest the discussion of such a question would excite; a question that perhaps the great majority of practitioners would have some difficulty in solving to the satisfaction of even the ordinary inquirer.

In attempting to answer the question at the head of this article, we do not propose to teach the specialist any new truth in ophthalmology, but only to point out to the general physician some indications for which spectacles may have more therapeutic virtue than darkened chambers, collyria, blisters, or other counter-irritants, etc.

It is evident that with ordinarily healthy persons, the use of spectacles can only be indicated when some anomaly of the refraction exists. The eye, when it is most useful and perfect as an organ of vision, is a dioptic instrument so constituted that when perfectly at rest, rays of light coming from a luminous body at a distance greater than twenty feet (viz., virtually parallel rays), are brought to a focus upon the retina, painting there the image of their source without the assistance of muscular action on the part of any portion of the organ. Unfortunately, this is not the normal condition of the eye, if we call that condition normal which pertains to the greatest number of individuals. Dr. Friedrich Erismann, of St. Petersburg, has had the opportunity of examining the condition of the refraction of 4,358 school children, and of tabulating his results. Out of this number he found very manifest anomalies of refraction in 3,226, or 74 per cent.; only 26 per cent., or about one quarter of the entire number could boast of having eyes which could be denominated emmetropic or perfect organs of vision. As before stated, the perfect eye is one whose refracting media are able to form the images of distant objects on the retina without the aid of any muscular exertion; it also has the power of so increasing the refraction, that objects at short distances are distinctly seen. This is denominated the *power of accommodation*, and the distance between the near-

est point (*punctum proximum*) and the farthest point (*punctum remotum*) at which an eye is able to distinguish objects is termed its *range of accommodation*. Now, in certain conditions, this power of accommodation, which is vested in the ciliary muscle must be continually exercised in order to obtain distinct vision of objects at any distance; hence the ciliary muscle being so constantly exercised, may become spasmodically contracted to a certain extent during the entire waking hours, and the ordinary method of examination by the aid of spherical lenses (to be hereafter explained) may fail to indicate the actually existing anomaly of refraction.

Appreciating this difficulty in obtaining exact results, Dr. Cohn, of Breslau, examined in the following manner the school children of Schreiberhau, a village about eighteen miles from Breslau. The whole number of children in the school was 302, 159 boys and 143 girls. Of these he examined thoroughly 142 boys and 98 girls, in all 240. First, they were required to read No. 20 of Snellan's test types, at twenty feet, with each eye singly in its turn.

From this examination, the following note was made; those able to read the types at the required distance are termed *emmetropic*.

	Right eye.	Left eye
Boys Emmetropic	122	119
" Ametropic (anomalies of refraction)	20	23
	142	142
Girls Emmetropic	90	92
" Ametropic	8	6
	98	98
Total Emmetropic	212	211
" Ametropic	28	29
	240	240

Of the 212 denominated emmetropic, however, only 50 were found who could not read the type equally well with convex spherical glasses, showing that the refraction in these cases was actually weaker than in any emmetropic or perfect eye; and that the refraction had been increased so that the types could be read, by the exercise of a certain

amount of the power of the accommodation. This is called faculative hyperopia or manifest hypermetropia. These cases must, then, be included in the anomalies. Out of 480 eyes, 370, or 77 per cent. were found imperfect. So far the examination was made in the same manner as that of Dr. Erismann, and gave almost the same general result. Dr. Cohn, to avoid the possible spasm of ciliary muscle above referred to, then paralyzed the power of accommodation by the aid of the sulphate of atropine, first in the right eye of the whole number, and after fourteen days in the left. He was able to complete the investigation with only 199, as the rest became frightened, and in some instances, the use of the atropia produced a temporary loss of acuity of vision. Of the 199, after the use of the atropia, 198 were hyperopic; one only was emmetropic, and this one had a visual power of only one fifteenth. ($A=\frac{1}{15}$.) Very interesting tables as to the degree of the ametropia are given in the Doctor's paper, which was read before the Ophthalmological Society at Heidelburg, September 6th, 1871. By further examination of the same number as to the comparative acuity of vision, this investigation shows that 97 per cent. were decidedly hyperopic after the paralysis of the ciliary muscle. The paper terminates with the following deduction:

"*From the foregoing it is determined, that the shape of healthy eyes of the village children is not that of emmetropia, but is that of light hyperopia, and that normal eyes, even for distance, must exercise weak accommodation.*"

These are startling facts, and it will not be considered at all surprising that the cause of a large number of the diseases of the eye for which the physician is called upon to prescribe, may be found in some of the anomalies of refraction, or, as we shall show, of the form of the ocular globe ; and if these anomalies can be corrected by the use of lenses, the therapeutic value of spectacles must become evident to all; not as a cure of disease, but as a preventive of nearly all the difficulties of vision "weakness," so called, and maladies of the eye.

We do not wish to affirm, or even to imply, that each and

every one of these abnormalities must produce disease of the eye, or are incompatible with useful vision, because our every day observation would be a denial of the proposition, but they are almost always the predisposing cause of certain forms of disease which are liable to supervene at any time. It has been remarked by numerous anatomists and physiologists that nature often attempts to correct a deficiency of any one part by the superior development of another.

In a large number of cases, an eye deficient in its refractive power is a case in point; and we often find that a superior development of the muscular apparatus of the eye and its appendages, overcomes the lack of perfection in the structure of the ocular globe.

Since the normal eye is not perfect in its form, oculists in describing refraction have based their observations on an ideal or schematic eye which has a definite form, with fixed dimensions. If we wish to study the difficulties of vision, and the diseases to which an imperfect organ is subject, we must consider the relations which two perfect schematic eyes would bear to each other as the visual organs of an individual. Rays of light proceeding from an object at an infinite distance will be brought to a focus upon identical points of the two retinas, without the aid of any effort either on the part of the ciliary muscle, in which is vested the faculty of increasing the refraction, or on the part of the recti muscles of the globes, and the two visual axes would be perfectly parallel. When the object is placed at a shorter distance, the refraction must be increased by an exercise of the power of the accommodation (action of the ciliary muscle); and the visual axes must be made to depart from their parallelism, and be converged toward the object by the action of the internal recti muscles; hence it follows that the accommodation is necessarily associated with convergence of the globes. It must be remembered that anomalies of the refraction are due to *anatomical* imperfections, and that anomalies of the accommodation are due to *physiological* deficiencies. As the age of an individual advances, the lens becomes firmer in its consistence,

and hence offers greater assistance to the action of the ciliary muscle, and the range of the accommodation becomes shorter. It is estimated by Donders that the near point of distinct vision, or *punctum proximum*, at the age of 10 years, is a point 2 inches from the eye; this *punctum proximum* constantly recedes with the increase in years: at the age of 22 years, it has attained the distance of about 4 inches; in other words, this power is now equal to that of a double convex lens whose focal distance is 4 inches. Accommodation $= \frac{1}{4}$.) At the age of 45, the near point is situated at 12 inches; the accommodative power has decreased to $\frac{1}{12}$, and our subject begins to hold his evening paper at a considerable distance in order to read it with comfort. This condition is termed *presbyopia*; obviously the accommodation must be assisted by the employment of convex lenses, and we have the first and simplest indication for the therapeutic use of spectacles. In the case just mentioned, we determine the near point to be 12 inches from the eye. If we consider 10 inches to be a more convenient reading distance, we must increase the refraction, so that rays coming from a distance of 10 inches may be focused upon the retina. If no power of accommodation existed, then a double convex lens, with a focal distance of 10 inches, must be used (viz.: a lens with a power of $\frac{1}{10}$), but a power of $\frac{1}{12}$ (accommodative) already exists, therefore a lens having a refractive power of $\frac{1}{60}$, a focal distance of 60 inches, representing the difference between the two powers, must be used. ($\frac{1}{10} - \frac{1}{12} = {}^{1}$.) If the *punctum proximum* in any given case is known, it is easy to calculate in this manner the proper lens required to read small characters at a given distance. In some forms of nervous disorders, the accommodation may be sensibly diminished, or even entirely paralyzed. In the latter instance, lenses No. 10 ($\frac{1}{10}$) must be prescribed. If we should meet with a case able to appreciate objects distinctly only when situated at a distance of, for instance, 15 inches, and not presbyopic, lenses having a focal distance of 30 inches should be directed ($\frac{1}{10} - \frac{1}{15} = \frac{1}{30}$), if it is desired to see distinctly small objects at a distance of 10 inches. So far we have considered only the emmetropic

eye, and the conditions which indicate the use of spectacles, but as the perfect eye is rather a rarity, we must expect to find their use both a convenience and a necessity in a very large number of cases.

If the original amount of refractive power of the eye is not sufficient to converge incident parallel rays to a focus upon the retina, then the power of accommodation must be exercised to obtain distinct vision of objects at any distance. In the emmetropic condition, the ciliary muscle is virtually at rest, when the regard is directed toward objects not farther away than 20 feet, and is only exercised while the subject is reading or employed over work requiring near vision, hence there is a healthy amount of rest and exercise for the muscle; but if the ciliary body is required to labor continuously, a certain amount of fatigue must be manifested, which will be directly proportioned to the amount of the excessive labor and the degree of the anomaly of the refraction. When the anomaly is not very great, and the subject is healthy, having a good amount of nervous vigor, comparatively no inconvenience may be experienced, unless prolonged exercise of the eyes over near objects be persisted in, when the excessive tension will be evidenced by congestion of the globe and the surrounding parts, and the fatigued organ will demand rest. Such persons will generally complain of a heaviness of the lids, a pain or sense of tightness across the temples, and an almost irresistible inclination to close the eyes after reading an hour or so. The heaviness of the lids is caused by congestion of the conjunctiva, which may amount to an actual hyperæmia, and produce the sensation of pricking, as if some foreign body were in the cul-de-sac. Chronic spasm of the ciliary muscle may occur to such an extent that the patient may appear to be near-sighted, and the power of accommodation being associated with convergence of the visual axes, the internal recti may be occasionally so much contracted, that blurring of the images, or even double vision, may be complained of, as patients often express it, "the lines of a page seem to run together." This condition or anomaly of the refraction is called *hypermetropia*, and is best defined as

a deficiency of refracting power on the part of the refracting media (the cornea, aqueous humor, lens, and vitreous humor) when unassisted by the ciliary muscle, by which parallel rays of light, instead of being brought to a focus on the retina, are converged to a point behind or beyond it. The degree of hypermetropia is exactly measured by the power of the convex lens which will be found necessary to supply the wanting refractory power, and converge the rays to a focus exactly on the retina.

In the majority of young persons this result is only attained by the use of the sulphate of atropa, which completely paralyzes the ciliary muscle, thus preventing the accommodation from acting as a factor to increase the passive or natural refracting power. Some of our most eminent teachers recommend that the oculist should always examine the refraction of every patient who applies for treatment, whenever it is practical. The patient should be placed at a distance of 20 feet from a card upon which is printed the ordinary test-types (Snellen's are most frequently used), and if he is able to decypher No. 20, the trial should immediately be made with a weak convex lens; for instance, No. 60. If the letters are read as readily through this glass, it is positive proof that hypermetropia does exist equal to or greater than $\frac{1}{60}$ ($H = \frac{1}{60}$), because the rays of light which pass through such a lens from an object at the stated distance must be convergent in their course when they enter the eye, requiring a less amount of refraction to bring them to any given focus than if they were parallel, and it has just been explained that while the refracting power may be increased by physiological action it cannot be diminished. If we find that the patient cannot read the characters with a glass, whose focal distance is any shorter, the hypermetropia already discovered is termed manifest (written $Hm = \frac{1}{60}$), a drop of the atropia solution now being instilled into the eye, it may be found that the eye will fear a glass No. 24, showing an actual hypermetropia of $\frac{1}{24}$ (termed latent). A lens focal dist. 24 in. placed before such an eye will cause it to be exactly in the condition of one which is emmetropic, as far as the power of its

dioptric media is concerned, and the ciliary muscle would only be called into action when regarding near objects. If a spasmodic action of this muscle, however, exists, absolutely preventing an entirely passive condition on the part of the muscle, then the lens representing the lack of refractive power would not only prevent perfect acuteness of vision, but would actually diminish it; therefore the lenses representing the degree of manifest hypermetropia should be used by the patient until the spasm becomes relaxed, when the power of the lenses may be increased, and finally the latent hypermetropia may be completely annulled by the proper spectacles, and all the untoward symptoms of congestion, pain and weariness will disappear. This desirable result may be often materially hastened and enhanced by the judicious therapeutic use of general tonics. As a rule in these cases, the form of the globe, which is congenital, does not change with age.

Patients who are found to be actually "near sighted" or myopic, on examination also possess a congenital mal-formation of the globe of the eye, by which the dioptric media have too much refractive power; in other words, the retinæ are placed behind the focus of incident parallel rays. Rays, however, coming from a certain near point have sufficient divergence when they reach the cornea to require all the refractive power of the media to focus them on the retina. The distance in inches of this point from the eye is the measure of the myopia. It is obvious that the double concave lens which will diverge parallel rays to the extent that when projected in front of the lens they converge to a point at the same distance from it, as that at which the object must be placed in order to be distinctly seen by the eye under examination, will bring distant objects distinctly into view in any given case, and the myopia will be estimated by the negative focus of this lens.

The therapeutic value of spectacles for myopic patients, is like the lenses, negative. In calculating the proper glass for any given case, the method mentioned above as to convex lenses may be applied. For instance, if we have a case, whose farthest point of distinct vision (sum of the

myopia) is 6 in. from the eye, and it is desired to remove it to 12 in. distance, a more convenient reading distance, we have, in effect, to decrease the refraction of a dioptric system whose focal distance is 6 in. (power $\frac{1}{6}$) to one whose focus is 12 in. ($\frac{1}{12}$). The difference in power is $\frac{1}{12}$ ($\frac{1}{6}-\frac{1}{12}=\frac{1}{12}$). Therefore the diverging lens whose focus is 12 in. should be used; in common parlance, concave spectacles No. 12. Spectacles in myopia, however, should be avoided as much as possible, as their employment tends to increase the affection. There is no space in this limited article to refer to the pathological complications occurring in this condition. It has only been the intention in these remarks to refer to those anomalies in which spectacles have a therapeutic value, and it will be possible to give only limited and concise considerations of the anatomical and physiological characteristics of each anomaly in separate papers devoted to these subjects.

Editorial.

The commencement exercises of the two medical colleges in this city, were held on the 3d inst. That of the "Toland College" at noon, the opening address being delivered by Dr. Trenor, late Professor of Medical Jurisprudence and Mental Diseases in that school; and the address of welcome in the "Medical Department University of the Pacific" was delivered by Dr. Cushing, Professor of Obstetrics and Diseases of Children, there. Each orator was listened to by a large audience, which frequently manifested its appreciation of the subject, and the able manner in which it was handled. The object and aim of each address was an earnest effort to impress upon the minds of the embroyo Æsculapians the necessity for a much closer application to study than is generally thought to be required, in order to become

even passable practitioners, whilst for honest and permanent success in their chosen vocation, constant and persistent *work* is necessary. They were warned that although they might acquire some pecuniary advantages at once, and gain a reputation speedily, it would be only by following some noted examples of so-called successful practitioners in our midst, who gained wealth and questionable fame, but at the loss of all self-respect, and of course, the respect of all honest men.

For manifest reasons, we cannot publish one of the addresses; the other will probably appear in the pages of our contemporary. We congratulate each school, inasmuch as the reports in the daily press indicate a degree of prosperity highly gratifying to the faculties; but we must, at the same time, express our regret at the seeming necessity for *two* schools in order to educate what would be an exceedingly small class for *one*.

It seems to be the general opinion of the profession on this coast, outside of either school clique, that a sacrifice of a little personal ambition, on each side, would go far towards uniting the profession, now so sadly disunited; and that by the infusion of more young blood, a faculty might be formed which, supported by the intelligent mass of the truly "regular" profession, could build a school here an honor to our coast, fill its benches with an eager crowd of students, and graduate them only after a stringent examination, perfectly competent to act in emergencies, and practice rationally when turned adrift on the community.

Being, as was announced in our first editorial, "the organ or exponent of no sect or party, either in medicine, politics, * * * etc." we earnestly desire the good of the entire profession, and will firmly support any measure tending to unite its at present numerous cliques under the broad standard of the Code of Ethics of the National Association; we will lend our support to any plan of education which will increase the requirements of preliminary studies, and elevate the standard for graduation far beyond what it obtains at present: we will assist, as much as in us lies, to the removal of a jealousy which will prevent

a student, in search after the greatest number of illustrations of disease for study, from being debarred from one half the cases in a public institution because another school has them, when by allowing each full range, the entire number can be studied clinically by all.

Of course, no man can give satisfaction to every one, even with the utmost effort to do so. His peculiar ideas (often amounting to what is called bigotry), or still more peculiar manner of giving vent to them, or his mode of practice or method of obtaining it (honest, perhaps, according to his ideas), may prove a stumbling-block to others desirous of doing good. If he is in the minority, he manifestly should consider his work of usefulness as done, and retire gracefully, happy in the knowledge that he has accomplished his duty, and leave to the younger and more modern minds the carrying out of a work which they, in turn, must as gracefully, and we hope as proudly, deliver to their successors.

San Francisco has every advantage possible for a large and completely appointed medical school; and can any one imagine that three small institutions could exist on this coast, if the profession here was united as one man, in harmonious intercourse, and a desire to promote its own best interests! A large city will always afford the greatest amount of clinical material for the prosecution of professional studies; its public institutions are always open to the student and professor, and in such a locality congregate those desirous of improvement. Besides, specialists find the greater field for their labors where the population is most dense, and in them we should find our teachers. If we search a book on a special disease for more information regarding that subject than we can find in a work on general practice, why should we not look to educated and properly qualified specialists for a greater amount of minute and practical knowledge in their branches than is possessed by even the best informed general practitioner? (Unfortunately, unless supported by the mass of the profession, such specialists are sure to encounter the jealousy of such as aspire to their perfection, and who see in their every act a tendency to quackery.)

It is not every medical man, however, even though he be a specialist, who is qualified to be a teacher—a professor. There is a special gift of teaching which is possessed by comparatively a few, as is easily shown by watching the attendance on each lecture, in any school. It requires but a short time at the commencement of a course, for the students to learn which teacher is calculated to interest them most, and his lectures will be best attended, his examinations the most satisfactory—but a college having in every professor an expert specialist in all that pertained to his chair, would be founded on a basis as lasting as the rocks themselves. Perhaps this will be considered too radical a change for this era in our history, but it is the end to which we are drifting. It succeeds in Europe, why shall it not be equally successful here? The professional mind is more ripe for changes now than ever before.

Harvard Medical College recently took a step not previously tried in our country. At first it was told to expect a diminution of students, who would flock where graduation was made easy and cheap; but such was not the case, for the profession and society at large saw the necessity for a more liberal education and more rational views on the part of those entrusted with the health and lives of their fellow man. Why stand still and lament the spread of quackery, regret that ignorance and brass will succeed in gaining popular endorsement, when education and refinement fail, at least for the time? The fault is with the profession itself. Let the practitioner in large practice and good standing lend his aid, even though it crowd him in time, to perpetuate his noble calling in all its purity; let the educated junior come forward to assist his less fortunate brother in acquiring that knowledge which he glories in, to alleviate the suffering of mankind; and, most important of all, let the Medical press free itself from the restraining influence of a connecting tie with any *one* institution or clique of men, that it may labor for the general cause.

The press is all powerful for good when free; contaminate it by alliances, it ceases to be independent, and loses

its influence for good, in proportion to the number of interests which control it. Now, take a scientific and educational press, which muzzle by running it in the interest of one school or clique in opposition to another, and it becomes narrow in its views and teaching, ceases to be a representative organ of the profession in its locality, sees but one interest, and that a small one, and divides where it should unite.

What is the necessity for the seventy or eighty medical journals in this country? None, excepting that so many are issued as the organ of some school or clique that the remaining profession call for a true exponent of its views, for independence of thought, and the expression of it; and what is significant in proof of this statement is the fact that such independent journals are the most successful ones; their subscription list shows it, and their contents are the production of a larger and more diversified class of contributors.

Competition in business is good—it lowers prices and increases products. Competition in professional education is fatal. It debases the would-be educators, forcing them to sacrifice the dignity and self-respect which pertains to scientific men; to cheapen in every way the estimation in which knowledge is held; and, finally, after the briefest and most incomplete curriculum to testify on the diploma that its holder is educated, is competent, is in fact, what he would be were he *not* what he *is*. Let rival schools exist in a community not able to support more than one institution, and the inevitable end is a scramble for the greater number of students, greater amount of fees, and larger number of graduates. Preliminary education cannot be investigated, it would diminish the students; moral qualifications are dropped for the same reason; stringent examinations are debarred, or the exhibit of the school's prosperity (the list of alumni) will not be favorable.

It may be offered in reply to the above assertion, that to establish a State Board of Examiners, who would examine for final graduation, all the students from whatever school in the State, would enable competition to work for the

greater good of the profession. This we admit in any country but ours. Here, the entire control would be soon in the hands of politicians, and then all value of a diploma would be lost, and the worst school would appear the most successful. The question of party would be the first requisite in examiner and examined.

There is, however, one way by means of which the profession generally can come to the aid of the cause of education, and render vast assistance through the medical press. It is by furnishing the results of their observations for the benefit of others. Some may say, that owing to the extent of practice, their time is too much occupied to record cases. This may be a good reason to urge by those who have no pride in their profession—no desire to assist others, but look only for pecuniary returns for their own labors. Happily this class is small. We believe that different sentiments prevail with the majority, and they can occupy their students at recording cases, thus benefitting them by inculcating habits of accuracy and close observation. The great mass of medical men, however, are either, to speak plainly, too lazy, or afraid to try because of adverse criticism.

The great want now is for tabulated statements, or the results of numerous observations which others can arrange for reference. A distinguished teacher remarks, on page 177 of this volume:

"Until comparatively recent times, physicians do not appear to have sufficiently appreciated and employed the valuable instrument of statistical calculation. It is probably only by the assistance of such an exact test, that we shall eventually arrive at fixed conclusions respecting the efficacy of different modes of treating disease, and the prognosis to be found regarding the probable issue of various maladies. In the history of the more demonstrative sciences, it will be found that it is the introduction and use of *accurate numerical measures*, that forms the prelude to the epoch of rapid advancement. * * * There is, of course, no *absolute certainty* beyond the pale of pure mathematics, as probabilities pertain even to the most perfect of the mixed mathematical sciences; nevertheless, the extent to which any science admits of the application of numbers, may be regarded as a fair measure of its *exactness*."

The medical press furnishes the means of making known one or more observations of individuals, to add to those heretofore made, and year by year the amount increases, until a sufficient number accumulate to warrant conclusions to be drawn and laws of disease laid down.

Wunderlich's thermometric observations amounted to "*some millions.*" It was not until they reached 100,000 that he commenced to make them serve as a basis for the determination of decisive questions in pathology! What perseverance! Why was it done? Certainly not for himself, but for the good of the profession. The simple volume containing the result of his experience is to-day a specialist, and is more of a professor, more of a teacher, and imparts more valuable medical knowledge than do half of the members of the faculties of any of our smaller, and many of our larger and more complete medical schools.

We want more such books; more such observations recorded in our medical journals, from which others can obtain the data to compile these works of reference. We want, in fact, the profession to awake and realize that others are to succeed us, and must have the results of our experience, or our science cannot advance.

Art. VII.—*American Medical Association.*

In looking over the proceedings of the American Medical Association at the late meeting in Philadelphia, the president's address is the first matter attracting attention, and notably that portion of it referring to medical education. Dr. Yandell did not favor or regard as practicable any sudden advance of the standard of education to an equality with the best European colleges—he thought that what he termed "the refinement" of medical education not only did not necessarily do any actual good, but was often a positive evil: *i. e.*, a physician had better not possess too much knowledge—by knowing somewhat less he would practice

somewhat better. This doctrine comes strongly from the president of so learned a body as the American Medical Association, and we can only say that we have never heard it advanced by any one possessing this refinement. Perhaps, being himself a teacher in a medical college, his views incline to large classes more than to large education.

The delegates were harmonious upon most of the subjects which came up for consideration, the chief matter eliciting sharp debate and some acrimony being the old cause of dispute, the woman question. That portion of the report of the Committee on Ethics which recommended that the delegates from three institutions, viz: the Academy of Medicine of Washington, D. C.; the Freedmen's Hospital of the District of Columbia, and the Howard University of Washington, D. C., be not admitted into the association, was the occasion of a very animated and at times violent debate. The reasons adduced for this recommendation were, first, that women are admitted to fellowship in the two latter; second, that in the case of the first, it does not comply with the civil laws obtaining in that locality; and third, that certain of the professors in the last named institution associated with homeopathists. The motion to accept the report of the Committee on Ethics was carried by a very large majority, after a full discussion. It will thus appear that the association adheres closely to the Code of Ethics, its own creation. Societies, institutions, and individuals in this part of our country, whose proceedings may hereafter come to the cognizance of the association, would do well to remember that any violation of this Code, or of the rulings adopted by the association as to eligibility for membership, will not be overlooked by it. It is unfortunate that such a warning should be needed at all, but it certainly is in this community. The question of female medical education came up, but the association refused to consider it, apparently satisfied to leave its solution to time and the operation of natural laws, which will eventually dispose of it without regard to the action or opinion of any scientific body.

The diminution from the usual size in the last published volume of the transactions of the association has had the very pleasing result of leaving a considerable balance in the treasury, besides making the volume itself more desirable from the unusual discrimination exercised in accepting papers for publication. The subject of greatest practical importance that came before the association was that of medical education. There has been very little progress made in this matter from the time of the organization of the association, although it has more constantly than any other occupied its attention. The report of the committee on this subject, presented by Dr. J. S. Weatherly, of Alabama, the chairman of the committee, and signed by himself and Dr. J. M. Toner, of Washington, D. C., recommends an appeal by the association to the different authorities, that no more charters be granted by State Legislatures to colleges which do not adopt the plan to be hereafter recommended by this association, and that all existing colleges which do not fulfill the requirements of this standard have their charters revoked. This appears to us to be an entirely useless plan, as no such appeal to a political body will produce any of the desired results. The further suggestion that the association seriously consider the expediency of publishing a monthly journal, the editor to be elected annually by the association, instead of the annual volume of transactions, will probably fall still-born, as it ought. But the recommendation of the committee that the association take decided action to make itself felt as the head of the profession in the United States, by demanding a proper standard of membership, and by publishing to the world that colleges which do not observe certain rules shall not be entitled to representation, indicates the only mode in which the association can control or improve our system of medical education, and we hope to see the recommendation acted on at the next annual meeting. We do not think, however, that the standard of membership or the rules that govern medical colleges should be fixed by any body but the association itself. The proposed congress of delegates from the various medical colleges interested would be just

as unlikely to agree upon the best plan of education as individual medical colleges now are to be strict and exacting on the present plan.

The Committee on Medical Literature reported favorably on the idea of offering a triennial prize of six hundred dollars for the best essay, instead of the present plan of giving two hundred dollars to be divided between two each year: certainly a desirable change. We would get less matter, but doubtless of a far higher character, and something that would go to enhance our national reputation for original research and discovery.

The preamble and resolutions of the College of Physicians in Philadelphia, touching the frequency of accidental poisoning and the best method of preventing this, by using colored bottles, roughed on one side, for external remedies, and by putting the word "poison" upon all bottles containing poison, also a label indicating the most efficient and convenient antidote, was agreed to by the association, and ought to be acted on by all apothecaries. It would also be desirable that all poisonous medicines should be placed only in such bottles as can be distinguished by the touch in the dark. Such a practice would have saved to California one of her best citizens, who but yesterday lost his life for want of it.

We have not yet received the new Nomenclature of Diseases prepared by the committee appointed for that purpose, and therefore cannot express any opinion upon its merits.

The election of a California physician to the presidency of the association shows that the claims of our State are recognized by our professional brothers throughout the country, and it is to be hoped that before he greets them at St. Louis next May, such progress will have been made towards harmony and coöperation here that he can truly say to them that he represents the whole profession of California, not merely a fragment or clique. The inauguration of a special section on State Medicine and Public Hygiene was a very proper step to take. Its lateness is simply indicative of the fact that the association is the exponent of the ideas of the

profession at large in our country, not its leader, and never takes a step, and from its nature cannot do so, in any respect in advance of the general sentiment of the profession. The overshadowing importance of this department of medicine, the prevention of disease, as distinguished from its management, is now fairly estimated by physicians, and it is appreciated that both in individuals and when applied to bodies and communities of men, this branch of the science offers a wider and richer field for research and practical application than the art of medicine as formerly understood.

It is to be regretted that the association did not definitely agree to, instead of referring back to the State societies, the resolution offered by the Committee on Ethics "that members of the profession hired by the month or year for definite wages, by families, railroads, manufacturing incorporations, or any money-making institution whatever, for ordinary medical or surgical practice—always excepting eleemosynary and charitable institutions and hospitals—are to be classed as irregular practitioners, and, therefore, disqualified for membership in this association or in State or county societies." The exception ought to have been extended so as to include sea-going vessels, but in every other respect the resolution is a proper one, and its adoption by the association would tend greatly to curtail the reprobated practice, which tends to degrade medicine from a profession to a trade.

The entertainments provided for the delegates to this convention by the Committee of Arrangements, assisted by a large Committee of Reception, were in every respect worthy of the ancient reputation of Philadelphia as the centre of the medical profession in the United States. There was a reception by the Biological and Microscopical section of the Academy of Natural Sciences, with music, in the evening of the first day. In the evening of the second day a lecture by Dr. H. D. Noyes, of New York, on the "Relation of Diseases of the Inner Structure of the Eye to other Affections of the Body," illustrated by ophthalmoscopic pictures in the magic lantern; a short lecture by Dr.

R. E. Rogers, with demonstrations of electrical phenomena; and receptions at the residences of Dr. Wm. H. Pancoast and Dr. Hugh L. Hodge. On the third day the delegates visited the Pennsylvania Hospital, by invitation of Dr. Addinell Hewson, to witness the operation of amputation at the hip-joint, and in the evening were entertained by Mr. Thos. A. Scott, at his residence on Rittenhouse Square. In the afternoon of the fourth day, after the final adjournment, the delegates visited Fairmount Park, and with their ladies partook of a collation prepared for them at Belmont Pavilion. Besides these, invitations were extended from the various hospitals, the medical colleges, and from different manufacturing establishments. The hall of the College of Physicians was thrown open from Tuesday morning until Saturday evening, and in it these committees had collected for exhibition many valuable contrivances and discoveries, philosophical apparatus, anatomical and pathological specimens, pharmaceutical preparations, surgical instruments and appliances, and many curiosities of medical literature. Altogether the convention was one of the most successful ever held by the association. *

SAN FRANCISCO, June 1, 1872.

Messrs. Editors:—In the February number of your journal, Dr. A. Andrei, in his report of a case of ovariotomy, says: "It is regarded by the majority of surgeons of this city as an operation which should not be attempted in San Francisco, basing their opinions on the few cases which have been operated on here; and considering that the proportion of failures are due to an indefinable something in the atmosphere." And again, "That we must search for the cause of our failures in another direction, and not attribute it to the much abused air of San Francisco."

What we would ask of Dr. Andrei is, what surgeon of San

Francisco who has operated for "ovarian tumour" charges his failure, or the death of his patient, to the "*unfavorable air*" of San Francisco? And what surgeon considers that the "*atmosphere*" of this city is unfavorable to surgical operations of any kind? And can Dr. Andrei procure an expression from the Board of Health, or from any of the medical societies of this city as to whether in their opinion the atmosphere of San Francisco is favorable or unfavorable to the operation for "ovarian tumours," or for surgical operations of any kind. Yours truly,

W. F. McNutt.

Miscellaneous.

[We give place, with pleasure, to the following interesting address on the "Origin of Medical Science," delivered in Philadelphia on the 6th May, by Dr. B. F. Dawson, of the *American Journal of Obstetrics*, before the "Association of American Medical Editors."—Ed.]

Members of this Association: We meet this evening to fraternize, in the most emphatic acceptation of the word; to celebrate the third anniversary of our association; to renew old friendships, and to behold once more, however changed, the faces of those we delight to see, and in whose eyes beams the light of a hearty recognition and welcome.

In accordance with the example set by my distinguished predecessors, as president of this association it devolves upon me to entertain you, if possible, by an annual address.

Much as I feel, and fully as I appreciate the honors of the office to which I was elected last year, yet I also feel that the position I at this present moment occupy is not among those professional distinctions either covetously sought after or earnestly desired. On the contrary, among the members of our profession at least, I am quite sure such a task is more frequently shunned than desired. For

myself at least, I plead no exemption from this possible frailty.

Leaving topics of direct interest to this association for our business meetings, I propose to engage your attention for a short time on a subject of interest to you as scholars and disciples of Æsculapius, to wit: "The Origin of Medical Science."

The obscurity which surrounds the early infancy of the art of medicine envelopes also the origin of all branches of human knowledge. All we do know is that from the earliest periods of history it was practiced, and from this fact we may believe that at the dawn of the arts it had obtained a place among them. Reasoning from the general course of nature, it is evident that ancient man was subject to various influences affecting his physical health, and that therefore he must very soon have been obliged to seek for means of alleviating the pains, and curing the disorders with which he was afflicted. From this reasoning, therefore, we may safely affirm that the treatment of disease bears almost as ancient a date as the origin of man himself. Among many rude and savage races of the present day, as those of Africa, Australia, North America and Greenland, traces are found of the practice of medicine and surgery. We are told that those savages knew how to distinguish different diseases, and to apply a more or less appropriate remedy. These uncivilized tribes, therefore, may be taken by us as the picture of mankind in their original primitive condition.

Allowing that ancient man had diseases which he naturally sought to cure or alleviate, yet we must presume that the means and methods were crude, and more frequently the result of fortunate accidents than of rational investigation and study. Receiving successively by tradition a knowledge of such discoveries, it is probable that each tribe made new additions to such knowledge, and in this manner their acquisitions would gradually increase. The art of healing may, therefore, be considered to have thus had its origin.

Later on in the history of man, when tribes became divided into communities, and communities into distinct families, it is probable that medicine took a more established form. Each family had its own traditions and particular mode of alleviating disease, and thus successively they profited by the experience that had been collected by their predecessors. Still later, as the different arts developed their infant life, men of power and influence, who were desirous of adding dignity to wealth, and to become useful to their fellow-men, naturally cultivated each with

ardor, and were far from neglecting that of medicine, which afforded them the means of frequently rendering very necessary assistance. Among the distinguished Grecians especially, the art of healing was largely studied, and the names of Chiron, Aristacus, Theseus, Telamon, Patrocles, Ulysses and some others, we find were no less honored in Greece for their medical knowledge than for those exploits which, whether fictitious or real, have conferred a durable celebrity upon their names.

Among the writings of the ancient poets we also find conclusive proofs that they likewise applied themselves to the study of medicine, for we find them sometimes embodying in their works whatever they considered from experience to be valuable medical precepts. In such early periods, when the art of writing was but little diffused, or perhaps almost unknown, the measures and melodious rythm of poetry were extremely valuable for impressing the mass with certain truths. Orpheus and others have sung of "the beneficent art which *prolongs life, allays pain,* and by *restoring health* gives *happiness* and *pleasure.*"

In the writings of Homer we find him frequently speaking of the wounds of his heroes and giving advice as to the dressing of wounds and the action of several remedial agents. He tells us that wine was applied to the wounds of the soldiers composing the army of the Greeks before Troy, and that the knife of the surgeon was frequently resorted to. From these facts, therefore, we are entitled to infer that these practices are of a date prior to the age of which he lived. Next to the poets we find the ancient priests combining the art of healing with their other instruments of power. Indeed the medical and sacredotal professions have in reality many points of resemblance. Both bring into action the same principles, *hope* and *fear;* and although the objects of these two passions are not the same in the hands of the priest as in those of the physician, their effects had *at that time,* nearly the same degree of influence in promoting the doctrines of both. Certain it is that medicine, like superstition, exerts upon the minds of men an influence proportional to their weakness. In short, no art penetrates further into the human heart; no profession enables its votaries more easily to obtain possession of the most important family secrets, and no species of doctrine has a stronger voice of appeal to the public credulity. It was not, therefore, surprising to find the early priesthood practicing the healing art. From this time forward we find medicine and religion traveling hand in hand. The ancient gods were worshipped for the cures effected in their name

by the priests, and which were proclaimed by them to depend upon their intercourse with the Deity. The Jewish priests appear to have been the only physicians of their nation. It was to them, we learn, that the people addressed themselves for the cure of leprosy, and it was left to them to decide upon the fate of the families and individuals who were attacked with disease. In the porch of the Temple of Jerusalem we are told that a complete formulary of remedies was exhibited. It was among the ancient Egyptians, however, that the priests carried this power to the greatest perfection. They alone became the teachers, as well as the practitioners of medicine; in fact, they constituted an exclusive learned sect. The art of medicine was taught in their temples with those mysteries of initiation which are calculated to create believers. They subjected the art to absurd regulations, as, for instance, fixing a law to determine the time for the application of remedies in *all diseases, without any discrimination:* dividing the art into as many different branches as there were diseases, or organs in the body, and finally, compelling the son to follow the profession of his father. In ancient Greece, also, medicine was cultivated in the temples, and many of their deities were supposed to possess the power of healing the sick. Apollo, Diana, Minerva and Juno, besides their prophetic powers, through their priests had assigned to them the exercise of particular branches of the art.

About this time Æsculapius acquired the ascendancy over all other deities as a god-physician, and was called the son of Apollo by the priests. Aristophanes informs us of the manner in which this deity performed his cures. Those who came to consult him were first obliged to purify themselves with water. They then deposited their offerings upon his altar and reposed upon beds placed in the middle of the temple. As soon as they fell asleep a priest clothed in the dress of Æsculapius, and accompanied by his daughters, entered and informed each of his remedy. As the god was not to be revealed but in a dream, the patients crouched themselves upon the skins of the sacrificed rams, in order that they might procure celestial visions. Not to feign the most profound sleep, even when awake, was an unpardonable crime. Nor was it considered less dangerous to doubt that what they either saw or heard was by heavenly inspiration. If the advice thus given did not always restore health, it was at least becoming that the patients should not contract any new disorder. In consequence of some prudent precautions in this respect, many cures must have been accomplished by the diversion which the patients enjoyed

in the course of their journeys to the temples, and the not less invigorating effects of hope.

Of the numerous temples dedicated to Æsculapius the most celebrated were those of Epidaurus, Pergamos, Cos and Cuidos. The walls and pillars of the latter temple were covered with inscriptions describing the history of diseases, and giving an account of the remedies, which had been successfully used in their cure, as advised by the deity. We are told that many people had these engraved upon metal, stone or wood, for ready reference. However imperfect and unreliable these must have been, they must nevertheless have made a valuable collection for that period. They formed indeed, as it were, the first rudiments of the art of healing, and were the first steps in the direction of that method of observation and research which has steadily augmented up to its present vast proportions, and has placed the science of medicine on a solid basis. In course of time those temples, situated at Cos and Cuidos, were considered schools for the study of medicine. Both of them flourished together for a considerable period, and between them ultimately sprang great rivalry. To this jealously may be ascribed the sudden impetus given to the medical art at that period.

Hitherto, as we have seen, the physicians of the several periods were heroes, poets and priests—more deserving the name of empirics. They observed diseases and symptoms, and tried various remedies, and more or less judged from analogy. Their theory, which was as vague as their practice, was undetermined. The ignorance of the people had made it easy to satisfy them with any form of the art, and the credulity of the same had accustomed the more enlightened class to practice deception under the guise of harmony.

But in time certain men of more exalted character began to direct their attention to the study of the arts, and among others, to that of medicine. The revolution which these early philosophers effected in the healing art was a work of necessity. The time had arrived when it was no longer to be kept locked in the mysteries of the temples, and for placing it in the possession of others than the priesthood. From that time forward, therefore, a rational system of medicine was rapidly substituted for the existing unreliable and primitive rules, and the healing art was clothed with the same importance and dignity that graced the other branches of human knowledge. These philosophers then freed the art of medicine from the superstitious and hypocritical character it had hitherto possessed. They transformed an

occult and sacerdotal doctrine into a popular science and a common art. Although these "reformers" did this much, yet they themselves committed many errors. Not satisfied with elevating medicine to the equality of other arts, they attempted also to transfer to it the imaginary laws of their system of natural philosophy, which was fertile with errors and conjecture. Thus, Pythagoras, as an example, we learn endeavored to explain the laws of animal economy, the causes of disease and the action of medicines by the power of numbers; Democritus again referred them to the motion and position of the atoms of matter; while Heraclitus attempted to account for them by the influence of the fire of the universe. From such teachings naturally arose many of the absurd theories of which we find examples in the works of Plato, Aristotle and Plutarch, and to a slight extent in the writings of Hippocrates also.

Of all the philosophers who at that time devoted themselves to the study of medicine, Acron, of Agrigentum, in Sicily, is said to have taken the lead as the boldest and most original. Being convinced that the art of medicine should be based upon experience only, he accordingly endeavored to teach that, by studying and appreciating the different symptoms of disease by analogy, it was not difficult to find out the indications of cure. Wise as Acron was considered in his day, and enjoying as he did a distinguished reputation, yet he found it impossible to wholly overcome certain positive and dogmatical theories, and it was only long after his death that his views were accepted by a certain sect of physicians.

We have seen, then, that the philosophers of antiquity both improved and injured the science of medicine. Rescuing it from undiscerning ignorance, they, however, throw into almost as fallacious conjectures; they delivered it over from the blindness of empiricism to all the rashness of dogmatism.

In the hands of the ancient poets, we have seen that the art of healing was simply poetical sentiments; in those of the ancient priests we found it clothed with the vague and mysterious power of superstition; and, lastly, in the hands of the primitive philosophers, though its scattered and undigested materials were combined and formed into more or less regular and perfect systems, yet it still was overrun with the weeds of many crude and illogical reasonings, and could hardly claim a just right to be considered a science. Such was the condition of medicine at the period rendered famous by the appearance of Hippocrates. His ancestors, we are told, during seventeen generations, in regular suc-

cesssion, from father to son, had followed the profession of medicine in the island of Cos. Surrounded from infancy with all the objects of his studies; endowed by Nature with a genius which was both comprehensive, penetrating, bold and prudent, he commenced his career under the most favorable auspices, and pursued it during more than eighty years, with that degree of renown which was equally due to his talents and his character.

The date of the appearance of the "Father of Medicine," as he is called, on this terrestrial globe is fixed at 460 years before the advent of the Saviour. Since that momentous year for the science of medicine, more than twenty-three centuries have rolled from time into eternity, and yet still the name of Hippocrates is not the less known or honored. What made him so great is well known to all of you, and what he did for the science of medicine is familiar to each one of us. I will not, therefore, weary you with its recitation. On the contrary, it is my purpose to leave those 2300 years of time with all their glory, undisturbed, and ask you rather to look upon the science of medicine as it exists at present, and in the picture thus presented behold the mighty edifice of our life's profession, as it stands to-day, reflecting from its resplendent walls in golden beams the truths of a science that has inspired some of the noblest hearts that ever beat to worship at her shrine, and bears inscribed upon her tablets names of some of the world's truly great and good men. Ancient as the science of medicine has been shown to be, yet how little does this colossal temple of to-day resemble the rough and unhewn stones of its infancy. The weak and uncertain steps with which it at first essayed to walk have given place to those stupendous strides which even in our short life we have seen it take. Rising from the chains and trammels of ignorance and superstition we behold it to-day, standing erect and firm by its sister sciences, "clothed in purple and fine linen."

Looking upon the science of medicine of to-day and recalling some of those important advances which it has made within comparatively a few years, it is not difficult to prophesy as to the future. The physicians and surgeons of distinction whose names are honored among us are but the predecessors of equally brilliant men who shall strive, as these have striven, in future years to develop new truths from the inexhaustible treasures of research and study. Inexhaustible, indeed, is the well of medical science! Each new year brings us new volumes of medical lore, and gives birth to some new and brilliant genius among the disciples of Æsculapius, and yet the cry is "still they come."

And what is the future of medical science? Look back upon the imperfect sketch that I have just given you of the weakness of its infant life; see it now before you in all the grand vigor of its manhood, and your cheeks will burn with the blush of pride, and the convictions of your own hearts reply that its future will be superbly grand. Let us then, my fellow editors, feel a just pride in our calling, and by that all our powerful voice, "The press," instruct our fellow worshippers at the shrine of Æsculapius, by spreading the truths of medical science over the land, and whispering in their ears those stirring and beautiful lines of Longfellow:

"Lives of great men all remind us
We can make our lives sublime,
And, departing, leave behind us,
Footprints in the sands of time.
Let us then be up and doing,
With a heart for any fate,
Still achieving, still pursuing,
Learn to labor and to wait."

We are indebted to the *Chronicle* for the report of the *Third Annual Session of the California State Dental Association:*

SAN FRANCISCO, June 11, 1872.

The association convened at Mozart Hall, at eleven A. M. The president, Dr. S. W. Dennis, in the chair, and about thirty delegates being present. On motion, the hours for meeting were fixed at 10 to 12 A.M.; 2 to 5 P.M.; and 8 to 10 evening.

Drs. S. M. Harris, of Grass Valley, and Geo. McCowen were proposed and duly elected members of the association. After the transaction of some other unimportant preliminary business, the association adjourned till 2 P.M.

AFTERNOON SESSION.

The association reassembled at 2 P.M. Drs. S. E. Knowles and D. M. Hughes, of San Francisco, were admitted to membership. The president then proceeded to read his

ANNUAL ADDRESS,

Which was referred to the Publication Committee. It was an able, elaborate and interesting document, and was received with applause. At the conclusion of its reading, the association acknowledged their appreciation of its merits by a vote of thanks.

Dr. Dutch, chairman of the Committee on Operative Dentistry, read an interesting essay on the subject of operative dentistry, which was thoroughly discussed by Drs.

Knowles, Dutch, Roberts and McCowen. Dr. J. J. Medefee read an interesting essay on the pathology and treatment of aveolar abscess, which was discussed by Drs. Dutch, Dennis, McCuren and Knowles. Dr. Dutch was announced to give an exhibition of chemical practice at his office, 26 Montgomery street, at 1 o'clock P.M. tomorrow. The association then adjourned until 8 P.M.

EVENING SESSION.

The causes of irregularities of the teeth and best methods of correcting the same, was declared in order for discussion.

Dr. Knowles presented models of several cases that had been under his treatment. Dr. Sichel read a paper regarding coloring matter for rubber base, stating that the use of vermillion might be avoided. Dr. Austin presented a verbal report on Dental Pathology and Surgery, and noticed some important cases. Dr. Bush read an interesting report on Mechanical Dentistry. On motion, the discussion of said report was made the special order for 10 o'clock A.M. to-morrow, to which time the meeting adjourned.

JUNE 12. The association met at 10 A.M., the president in the chair.

Dr. Woodward, chairman of the Committee on Mechanical Dentistry, and Dr. Myres, of the same committee, presented interesting and practical papers pertaining to that subject, thoroughly discussing the details of mechanical practice. The papers were received and placed on file. Dr. Knox reported on Dental Literature and Education. A committee of five was appointed to report on State legislation for the regulation and practice of dentistry. Dr. Cole then made some practical observations with reference to the comparative merits of rubber base and the new celluloid method, as embodied in his experience. He expressed his decided preference for the former, and said in his practice he had wholly abandoned the latter. Drs. Dutch, Plomteaux, Dennis, Menefee, Crossett and Woodward followed, with observations on the various branches of mechanical dentistry, and the progress and improvements in the art. A number of specimens of different kinds of work were exhibited and commented upon. The meeting then adjourned till 2 P.M.

AFTERNOON SESSION.

The discussion on mechanical dentistry was continued. Dr. C. E. Knowles spoke at length, urging the superior adaptation of vulcanite as a base, from its cheapness, easy manipulation, and totally innoxious character. He de-

scribed the satisfactory results of various experiments he had made in the preparation and working of vulcanite, and explained his methods to the association, and said he knew of no substance that could take the place of vulcanite for the execution of cheap dentistry. Dr. Crossett acquiesced in the views of Dr. Knowles, and related similar experience in his practice. The discussion was an interesting one, and was no doubt beneficial to members present.

EVENING SESSION.

Dr. Crossett, of the Committee on Dental Pathology and Surgery, read a very interesting paper on the above subject. It was received with much favor. He also presented a pathological specimen, a large tumor, recently removed from the mouth of a patient. It was viewed with interest by the members, and the Doctor applauded for his able address, and for the specimen. On motion, the vacancies in the Committee of Arrangements was filled by the appointment of Drs. Woodward and Burnell. Drs. Henry C. Davis and William S. Davis, of San Francisco, were admitted to membership. Dr. H. J. Plomteaux then read a highly interesting essay on dentistry, its history, present claims and relations. Dr. Woodward then read a communication relative to the Cummins patent, which was thoroughly discussed. The meeting then adjourned until 10 A. M. to-morrow.

JUNE 13. The association convened at 10 A. M., the president in the chair.

The attendance of members was larger than on the preceding days. The Committee on Publication reported that they deem the publication of a dental periodical, under the auspices of this association, for the present, inexpedient, and they recommend that further consideration of the subject be indefinitely postponed. The report was adopted. Dr. Knox read an interesting essay on Dental Therapeutics. Notice was given that clinics in filling would be given at Dr. Knox's office at 1 P.M., and also by Dr. Dennis, at his office, on the administration of nitrous oxide and extracting of teeth, at 9 A. M. to-morrow. The resolutions of amendments to the constitution, offered at the last annual session, were then taken up and adopted.

The following resolution was also adopted:

Resolved, That a committee of three be appointed to revise our constitution and by-laws, and order of business, and that they be instructed to prepare a code of ethics and rules of order for our consideration, and to report the next annual session. Drs. Plomteaux, Knowles and Knox were appointed such committee.

A resolution of thanks to the various railroad companies for favors in furnishing free return passes to the menbers of the association, was adopted.

Dr. Dutch, delegate to the National Dental Association, made a verbal report, and spoke particularly of the recommendation of said association relative to the formation of local associations, and the necessity of appropriate instruction to the profession generally. A long and interesting discussion followed on the elevation and education of the profession, and the proper method of educating the public up to the importance and necessity of more attention to the subject of dentistry.

The association then took recess until 2 P. M.

AFTERNOON SESSION.

Dr. J. M. Younger read an essay on the abuses and treatment of loose teeth. The subject was then thoroughly discussed.

Dr. N. Shrewsbury, of Santa Barbara, was admitted to membership.

Drs. Plomteaux, Knowles, Knox, Menefee, Younger and Dennis were appointed a Committee on Legislation.

The following resolution was adopted:

Resolved, That a vote of thanks be tendered the public press of the State for the very generous and extended manner in which it has given notice of our State Dental Association.

Dr. Dutch, on behalf of the San Francisco Dental Association, extended an invitation to the association to partake of a collation under their auspices at 6 P. M.

Dr. Dennis, on behalf of the author, presented a pamphlet entitled, "The Claims of Dentistry," by Oliver Wendell Holmes. Dr. Dennis read an interesting paper entitled, "What makes teeth decay." The subject was thoroughly and extensively discussed, and the meeting adjourned until 8 P. M.

EVENING SESSION.

The evening session was devoted to the election of officers for the ensuing year. The following gentlemen were elected officers of the association: President, Dr. Wm. Dutch; First Vice-President, Dr. J. J. Menefee, of San José; Second Vice-President, Dr. J. N. Myres, of Stockton; Third Vice-President, Dr. S. M. Harris, of Grass Valley; Corresponding Secretary, Dr. H. E. Knox, of San Francisco; Recording Secretary, Dr. H. J. Plomteaux, of Woodland; Assistant Recording Secretary, Dr. L. G. Yates, of Centerville; Treasurer, Dr. C. C. Knowles, of San Francisco; Librarian, Dr. J. J. Birge, of San Francisco.

On motion, a vote of thanks was tendered to the retiring officers for their past services.

The election of delegates to the annual session of the American Dental Association, to be held at Niagara Falls, in August, was made the special order for to-morrow at 2 P. M.

The association then adjourned.

JUNE 14. The fourth and last day's session commenced at 10½ A. M. President Dutch in the chair.

Dr. H. W. Calvert, of San Francisco, was admitted to membership. On motion, Dr. Roberts was invited to read some correspondence in his possession relative to the administration of nitrous oxide gas (laughing gas), and the facts relative to the death of Mrs. O'Shaughnessy under its administration, in New York City, March 20th, 1872. The circumstances were widely published and commented upon in the press of the country at the time. The Doctor read the communication and the verdict of the jury in the case. The matter was then thoroughly discussed, and, at a subsequent stage of the proceedings, the following resolution was adopted as the sense of the meeting upon the subject:

"*Resolved*, That we, as a body, discountenance the indiscriminate use of anæsthetics by dentists for the extraction of teeth; and furthermore, that when such agents are necessary their administration should not be undertaken by any one not thoroughly acquainted with their influence upon the patient, and having always at hand all the best-known restorative agents."

Dr. Crossett then read a paper on dental literature and education, by invitation of the association.

At the request of the association, Dr. Knowles gave clinics at his office at 1 P. M.

The president and secretary were instructed to present subjects for theses for the next annual session.

The association then took a recess until 2 P. M.

AFTERNOON SESSION.

The following Standing Committees were appointed for the ensuing year: Arrangements—Drs. Austin, Light, Klein, Myres and Cogswell; Publication—Drs. Plomteaux, Knox, Dennis and Bunnell; First Section, Scientific Investigation —Drs. Dennis, Pierson and Woodward; Second Section, Dental Chemistry—Drs. Knowles, Prather and Belle; Dental Pathology and Surgery—Drs. Younger, Knowles, Kingsbury, Harris and Wilbutt; Mechanical Dentistry—Drs. Menefee, Spencer, McCowen, Bush and Calvert; Dental Literature and Education—Drs. Crossett, Cutter, Yates,

Eaton and Lindburg; Auditing—Drs. Bergé, Kingsbury and Cool.

It was resolved to hold the next annual session at San Francisco, on the third Tuesday in May, 1873.

[Dentistry being one of the "collateral sciences" referred to on our title-page, we are glad on that account alone to present the above proceedings, although it is a second-hand report. There is another reason which is, that we would prefer calling dentistry a specialty, and hope, in time, that it will be so considered, and a dentist, to be held as a regular, compelled to graduate in medicine before he be recognized as a qualified specialist. The teeth and jaws are as much a part of the human body as are the eye, ear, womb or skin, and why should we not recognize superior ability in their management as well as success in the other regions? The competent dentist requires a knowledge of anatomy, physiology and medicine to a slight degree; he must be well qualified in chemistry and a good mechanical surgeon. In many very important surgical operations the surgeon claims his assistance in contriving and constructing mechanical appliances as a substitute for lost supports to the soft parts, and to him is often due the success of the operation. The science is yet young, and we may reasonably expect soon to see these specialists organized, with a Code of Ethics, and a certificate of qualifications that will bind them to the profession at large. We are informed that at present, the degree of D. D. S. is obtained with the facility with which the M. D. degree was purchased from the squelched colleges of Philadelphia. The better class of non-titled practitioners in this branch should expose this unwarranted wearing of honors, and suppress quackery in that form, as in any other.

We shall soon give place to some practical suggestions on dentistry for the benefit of our subscribers in country practice, who are often called upon to administer to diseased teeth, and instead of obviating the difficulty by palliative measures until some practical dentist can be consulted, solve the question by extraction of the offending member, which could have been preserved by the application of a little useful knowledge.—Ed.]

MONTHLY REPORT OF DEATHS IN THE CITY OF SAN FRAN-

By C. M. BATES, M.D., Health Officer. *No. of Deaths corresponding*

CAUSE OF DEATH.	Total	AGES.																SEX.	
		Under 1 year	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	Over 100	Unknown	Male	Female
I. ZYMOTIC.																			
Diptheria	4	1		2	1													2	2
Whooping Cough	2		2															1	1
Fever, Enteric or Typhoid	6				2	1	2	1										4	2
Fever Intermittent	2							1			1							1	1
Fever, Remittent	2	1										1						1	1
Erysipelas	3	2							1									3	
Dysentery	2										1	1						2	
Cholera Infantum	2	2																2	
Other diseases of this class	7	3		1				2			1							6	1
II. CONSTITUTIONAL.																			
Cancer of Stomach	1										1							1	
Cancer of Uterus	1										1								1
Cancer of Breast	2									1	1								2
Other diseases of this class	2								1	1									2
III. TUBERCULAR.																			
Phthisis Pulmonalis	51	1				2	4	20	12	7	4			1				36	15
Hydrocephalus	2	1	1															1	1
Other diseases of this class	1	1																	1
IV. LOCAL.																			
Congestion of Brain	4	1						1	2									3	1
Meningitis	6	1			1	1		1	1		1							3	3
Apoplexy	4				1			1			1		1					3	1
Paralysis—general	2							1	1									2	
Tetanus	2	1		1														2	
Other diseases of this class	8	2						2	2	2								5	3
V. CIRCULATORY SYSTEM.																			
Pericarditis	2									2								1	1
Aneurism of the Aorta	4								1	3								4	
Valvular Disease of Heart	2										1	1						1	1
Dropsy	6					1				1	2		2					5	1
Heart Disease, undefined	11	1			1			2	1	3	3							5	6
Other diseases of this class	2									1	1							1	1
VI. RESPIRATORY SYSTEM.																			
Hydrothorax	1									1								1	
Pneumonia	14	1	1	3		1		1	4	1		1	1					9	5
Hæmoptysis	2									1	1							2	
Other diseases of this class	2	1									1							2	
VII. DIGESTIVE SYSTEM.																			
Gastritis	3	1		1						1								2	1
Enteritis	12	6				1	1		1	1	1	1						9	3
Peritonitis	3							2		1									3
Hernia	1									1									1
Hepatitis	5	1								1	1	2						3	2
Liver Disease	6								1	1	1	2	1					6	
Other diseases of this class	1									1								1	
VIII. URINARY SYSTEM.																			
Bright's Disease	6							1	1	3		1						4	2
IX. DEVELOPMENTAL.—CHILDREN.																			
Premature Birth	2	2																	
Cyanosis	1	1																	1
Convulsions.—Infantile	3	3																	3
X. OLD AGE	2												1			1		2	
XI. NUTRITION.																			
Atrophy	9	8										1						5	4
Inanition	1	1																1	
Alcoholism	2								2										2
General Debility	5	1						1			1		2					4	1
XII. ACCIDENTAL	15	1			1			4	6	3								10	5
XIII. SUICIDE	4								3		1							4	
XIV. SYPHILIS	3								1	2								3	
XV. CAUSES NOT SPECIFIED OR ILL DEFINED	17	2		1			1	2	3	7	1							12	5
TOTALS	263	47	4	9	7	7	8	43	44	46	27	11	8	1		1		177	86
XVI. STILL BORN																		7	9
XVII. BIRTHS REPORTED																		50	49

CISCO, CALIFORNIA, FOR THE MONTH OF MAY, 1872.

Month of 1866, 199; 1867, 208; 1868, 218; 1869, 309; 1870, 271; 1871, 226.

RACE.			WARD.															NATIVITIES.			
Caucasian	Mongolian	African	1st Ward	2d Ward	3d Ward	4th Ward	5th Ward	6th Ward	7th Ward	8th Ward	9th Ward	10th Ward	11th Ward	12th Ward	Public Institutions	Casualties	Suicides	F'r'gnCo'nr's	Atlantic U. S.	Pacific U. S.	Unascertained
4						1						1	1	1					1	3	
2						1						1								2	
6								1				1	1		3			1	1	4	
	2		1				1											2			
2									1			1						1		1	
2		1				1							1		1			1		2	
2			1												1			1			
2												1	1							2	
6	1					2		2	1			1	1					2	1	4	
1												1						1			
1															1			1			
2												1	1					1	1		
2							1							1				1			
38	11	2	2	1	1	3	1	7	2	3	1	6	3	2	19			37	13	1	
2			1	1																2	
1						1														1	
4												1	2		1			1	2	1	
6				1		1		1					1	1	1			2	1	3	
4							1					2	1					2	1	1	
2													1		1			2			
2						1							1							2	
7		1									1	3			4			3	2	2	1
2									1						1			1	1		
4					1										3			3	1		
2											1			1				1	1		
5		1	1					1					2	1	1			3	3		
11			2							1		1	1	3	3			8	1	2	
2												1			1			2			
1															1			1			
14			1	2	1				1		1	2	1		5			7	3	4	
2						1									1			1	1		
2			1											1				1		1	
3			1	1									1					1		2	
12				1		2				2	1	4			2			3	1	8	
3												1			2			3			
1														1				1			
5				1									1	1	2			4		1	
6												1	1		4			6			
1															1			1			
6					1		1	1					1	1	1			3	3		
2										1			1							2	
1												1								1	
3			1	2																3	
1		1				1									1			1	1		
9										1	1	3	1	1	2			2		7	
1															1					1	
2						1						1						2			
5									1		1	1	1	1	1			3	1	1	
10	5															15		13		2	
4																	4	2	2		
1	2					1		1							1			3			
7	10			1		7		3	1			2	1	1	1			14		3	
226	31	6	12	11	4	24	4	17	7	10	6	38	27	17	67	15	4	150	43	69	1
16																					
99																					

REMARKS.—The mortality for this month appears greater than that of the last, owing to the increase in the number of deaths from accidental causes. There is also a diminution in the deaths from pulmonary complaints, and an improvement in the death-rate of children under one year of age. In general terms, the sanitary condition of the city may be called good. The average mortality for the corresponding month during the past six years is 238½, and when we take into consideration the increase of population, it is easily seen that the increase in the number of deaths for this month is only apparent.

A PRACTICAL TREATISE ON THE DISEASES OF WOMEN. By T. GAILLARD THOMAS, M.D.; *pp.* 749; Philadelphia: Henry C. Lea; 1872. San Francisco: A. Roman & Co.

The first edition of this standard work appeared in 1868, a second in 1869, and already a third has now been published. These facts alone furnish the best commentary upon its value and attest the estimation in which it is held. It is undoubtedly the best work in the English language in the specialty of which it treats. For apposite and lucid language and perspicuity in the manner of presenting the different subjects to the consideration of the reader it has few equals, while it is admirable for its thoroughness and accuracy of detail, fairness in discussing mooted points and candor in the statement of the views of other authorities from whom the writer differs in opinion. Among the more noticeable features of the book are the care with which the differentiations are established and the value which is attached to the use of pessaries. The author is a strong advocate of the latter and shows conclusively their great advantages, and upon the general question of their use makes some valuable remarks on pages 381, 382 and 383. He says:

"Uterine pessaries hold a prominent position among surgical appliances, as a means of procuring palliative and

curative results. Like all other mechanical means, which are powerful for good, they are capable of doing a great deal of harm. Were I asked at the present moment whether I believed that in the aggregate, they accomplished more, good or evil, I should be forced to give a doubtful reply. Their injurious consequences I would attribute, not to the instruments themselves, but to the improper manner in which they are very often used, and the carelessness with which they are allowed to remain *in situ*, without observation. If splints were applied to broken bones, and never examined until union was effected, their utility would soon become doubtful. * * * While a pessary is kept in the vagina, cleanliness should be secured by daily vaginal injections, and at intervals, not exceeding two months, it should be removed, examined and re-introduced.

* * * * * * * * * *

"In spite of all its attendant evils, the use of the pessary is one of the most important points in gynecology, and every practitioner of that art should make it a faithful, special, and constant study. I confess that when I am told, as I sometimes am by physicians, that they never use pessaries, because they are so strongly prejudiced against them, the question always arises in my mind, then how and why do you treat uterine diseases? How pessaries can be dispensed with is to me one of the unfathomable mysteries of gynecological practice. And why any one should practice an art and ignore a means which, properly mastered, constitutes one of the most powerful and reliable of its resources, is equally incomprehensible."

An indication of the additional amount of labor bestowed upon this edition of the work is the fact that "the additions amount to nearly one fourth as much as the whole of the previous edition," many portions being re-written, and several new chapters introduced. The fresh matter consists not only of added material, but also in changed and new views upon many points. The substitution of the new term "areolar hyperplasia" for "chronic metritis," we think a desirable innovation, as expressing more accurately the fundamental pathological entity of the disease. Especially worthy of attention by the general practitioner are Chapter II, on The Etiology of Uterine Diseases; Ch. III, on Diagnosis of Diseases of the Female Genital Organs; Ch. XII, on General Considerations upon Uterine Pathology and Treatment; Ch. XV, on Chronic Cervical Endometritis; Ch. XVII, on Areolar Hyperplasia or Diffuse Interstitial Hypertrophy of the Uterus; Ch. XXI, on Versions of the Uterus; Ch. XXII, on Flexions of the Uterus.

*

The book is the outcome of the man, and his cautious, patient, philosophical mode of dealing with disease, and thorough honesty in his professional relations, well reflected in its pages, furnish the secret of his deservedly high reputation as a successful gynecologist and the esteem in which he is personally held by a wide circle of brother physicians. *

PRACTICAL SUGGESTIONS IN NAVAL HYGIENE, by A. L. GIHON, A.M., M.D., Surgeon U. S. Navy, *pp.* 151; Washington: Gov't. Printing House.

We have received the admirable work of which the above is the title, and perused it with pleasure, inasmuch as it is the only work of merit published by the Bureau of Medicine and Surgery in our navy, although the necessity for such "practical suggestions" has existed since the formation of the service itself.

While the medical department of the Army has largely contributed to our professional literature, the equally important Bureau in the other branch of the service has been silent; when at the commencement of the late war monographs on "duties of medical officers," "suggestions on hygiene," and other aids to inexperienced surgeons, were freely circulated by the one corps, the other made no effort to improve the hygienic condition of those who shipped to man its vessels, separate themselves from almost all civilization and spend the term of their enlistment on blockade duty, service in rivers and swamps, in the most unhealthy localities and under the most unfavorable circumstances.

The reason for this neglect is to be found in the everlasting red-tape and routine of Bureau duty and "customs of the service." The chief of Bureau then was a very worthy old surgeon, perfectly competent to act when there was nothing to do, because everything *did itself* in a well worn out protected by routine! (Of course the entire medical corps was compelled to act accordingly.) The allowance table of medicine had been calculated for peace when twenty vessels composed the cruising service; very few if any, of the modern drugs were allowed, and the entire quantity very scant: the sole attention of the Bureau *seemed* to be devoted to reducing the cost of support of the sick to a fraction of a cent per day, instead of exercising a wise and economical expenditure for greater comforts and some luxuries: any innovation on the established red-tapeism, although proven

to be for the comfort of the sick and good of the service, was disapproved; and even the translation by a surgeon, of the most complete work on Naval hygiene ever published, that of Fonssagrives, was refused on account of the expense! The work would have been cheap at *any* price then. Providence at last relieved the service, and the entire corps hoped for better things.

Near the head of the list of officers stood one with a world-wide reputation as a scientist, an author and a man of advanced views, one eminently qualified for the vacancy, but he did not curry favor with the politicians, he *did not get the position*, and for four years the medical corps stood still, headed by a man who had seen no sea service as surgeon, no active duty in the war, and whose service for the previous six years had been in the capacity of clerk to his predecessor. His place and position made secure, the corps took care of itself. We recognize but one advance during this administration of four years—the allowance table was slightly enlarged.

Soon after the advent of Grant to power, a new nomination was confirmed, and then a more enlightened system commenced. Of course everything could not be perfected at once, and the Bureau's first publication (and that was on Naval hygiene), had but little merit beyond its elaborate binding.

We have, at the risk of being tedious, given the above facts to explain one cause why the many able men composing the medical corps of the Navy have been forced to keep silent, and have not contributed their quota towards the good of the profession by making known the results of their varied experience. We trust that, now their works meet encouragement, we may see many monographs on professional subjects patronized by the Bureau and circulated among medical men.

To revert to the book in question. There is no officer better qualified than Dr. Gihon to write such a book. Its intention appears to be to advise young men entering the peculiar life of the navy, that the "circumstances of life on shipboard do not necessitate a violation of all the laws of health," and to show to the entire service how much can be accomplished by its medical officers towards rendering their lives more healthy and their comforts greater, if allowed to act as common sense and science dictates on sanitary subjects, and not be under control of what Dr. Ruschenberger styles as "quarter deck authority, exercised by men whose "wisdom, learning and training seem not to qualify them "to justly appreciate all the circumstances which influence

"the health and happiness of their fellow-citizens, crowded "together within the very narrow limits of a ship, rolled "and tossed about under control of almost autocratic "power."

The work is divided into eighteen chapters, each one on a special subject and very completely discussed. Frequent quotations from foreign and other authorities are made, but the mass of the work is the result of a not limited personal experience. It is invaluable to a candidate for the government service, and to any one entering on the charge of any large public institution where many persons are confined in a smaller space than nature ever intended; such as our public hospitals, alms-houses, reformatory institutions and asylums. Only let the medical men have power to enforce obedience to such excellent "suggestions" and the public purse would not be drawn on so heavily.

There *must come* eventually, a special millennium for the doctors, in which no interference from laymen will be tolerated on professional subjects, no political qualifications be required as a test of professional ability, and no favors to be granted only at the sacrifice of self-respect.

When that time comes there will be less sickness, and that of shorter duration, less medicine given, and misery generally not looking us in the face; a great load of anxiety will be lifted from the shoulders of the profession, the members of which can then, with sackbut and harp and psaltry and cymbals, leap and dance and make a joyful noise.

It was dignified in David of old to do thus when he was relieved from his enemies. Why should not we under similar circumstances?

Our profession antedates David's time. Two of the sons of Æsculapius went as surgeons in the Grecian army against Troy, over a century and a half before David knew the art of music and dancing.

EARTH AS A TOPICAL APPLICATION IN SURGERY. By ADDINELL HEWSON, M.D., *pp.* 309: Philadelphia, Lindsay & Blakiston; S. F., A. L. Bancroft & Co.

The typographical appearance of this book is all that could be desired. Printed on good paper, with clear type, it is not only attractive, but easy to read. The illustrations, four in number, are the production of the American Photograph Relief Printing Company, and reflect great credit upon them, being superior to almost anything of the kind we have yet seen in print.

"They are from photographs reproduced by a method

that would seem to leave nothing to be desired as to permanency, as well as faithfulness and accuracy of representation."

The table of contents is by far too meagre; and, as for an index, it has none. This we consider a decided defect, as no book, especially one of reference (as every medical work must be), is complete without a full and correct index of all that it contains. To obtain any idea of what is in this book, one must read it from cover to cover, and this we have done with great pleasure, and, we trust, profit.

The subject matter—the Topical Application of Earth in Surgical Cases, although by no means new, is presented to the profession in a new light, and one that must command the respect and attention of every true-thinking surgeon.

The volume opens with one hundred and eighty-seven pages, devoted to the clinical history of ninety-three surgical cases, upon which earth was used as a dressing by Dr. Hewson, in the wards of the Pennsylvania Hospital. The publication of these cases has been delayed nearly three years, the author tells us—

"For the double purpose of weighing them by subsequent experience, and of interpreting their meaning by a careful study of the various subjects which they involve."

These cases are carefully recorded, unique and full of interest; comprising, as they do, many of a very serious nature, including fractures, amputations, burns and scalds, cancer, wounds, ulcers, abscesses, carbuncle, etc., etc., such as are constantly seen in the wards of a large hospital. The success attending this treatment is truly worthy of notice. Of the ninety-three cases, we find but fourteen deaths, and only six who were not benefitted by the earth dressing, and who required decided change of treatment. The remaining sixty-seven cases—not counting *six*, who, dissatisfied, were discharged at their own request—are reported cured. The comments on the cases contained in pages 188 to 199 inclusive, are the result of a careful examination of the details of all the cases with reference to certain phenomena that took place after the use of earth as a topical application. These phenomena may be "considered either as its direct effects, or as results materially influenced by it, are as follows: 1st. "The effect as to the contact of the earth with the part." This cannot be considered as irritating, for the prompt answer of the patient that its presence "made the part feel cool and pleasant," was constantly given; and as to any secondary sensations, it was impossible to determine their existence. 2d. "The effect on the *pain* naturally incident to the part" was very generally that of relief.

3d. Its power as a *deodorizer* is abundantly proven. 4th. With reference *to its influence over inflammation*, the author says:

"In no instance was there ever any evidence of the earth either provoking or aggravating inflammatory action. In those when such trouble was present, but deep-seated, or dependent upon taint, it had no appreciable effect; but in all other cases its use was attended by a sedative and beneficial influence in this respect. In some it retarded such action; in others it appeared to arrest it; and in others it actually prevented its development."

5th. Its influence to prevent *putrefaction* is clearly shown. 6th. As to its influence over the healing processes, he says:

"The singular rapidity with which healing took place in the cases of wounds, whether from operations or accidents, and similar effects, so noticeable in all the ulcers, except when there was a local cause or a constitutional one, presents evidence of a remarkable power in this respect."

The remaining pages of the work—in some respects its most important portion—is on "its modus operandi," or the theories that have been deduced to prove how the use of earth in surgery can exert any influence in the production of these results. This is a discussion of the subject from a strictly chemical point of view, and has reference chiefly to the part taken by oxygen in producing these phenomena.

"The disposition of the most recent observers to give a more prominent place than was formerly accorded to the chemical relations of the elements in Nature's varied processes, brightens the prospect of the dissipation of those objections to the use of earth in surgery which are founded on old ideas."

No one, however prejudiced, can read this book without admitting that Dr. Hewson has given this method of treatment a fair trial; and that too in spite of, not only the opposition of hospital attendants, whose duties were thereby somewhat augmented, and the prejudice of patients, who "did not like the idea of using dirt as an application to their persons," but also the ridicule of brother surgeons themselves; nor, without being convinced that there must be some value in earth as dressing in surgical cases, as the author has made abundantly evident.

In concluding, we heartily recommend this book to every surgeon and physician, trusting that having once read it, they will, as occasion offers, give the method a careful trial, and for themselves prove its efficacy. C. S. K.

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IODOFORM and IRON	2 grs.	3 25	16 00
IRON, PROTO-CARBONATE (Vallet's Mass.)	3 grs.	50	2 25
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CYSTIC TUMOR OF THE NECK.
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THE

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MEDICAL AND SURGICAL SCIENCE.

FOR JULY, 1872.

Surgery.

ART. I.—*Cystic Tumors of the Neck.* By H. H. TOLAND, M. D., San Francisco.

These tumors may be either superficial or deep-seated. The superficial are located between the skin and cervical fascia, and the deep-seated beneath that membrane. They consist of one or more cysts; the multilocular are usually congenital, and never superficial. This difficulty is usually called hydrocele of the neck. The contents of the cysts are different. Sometimes the fluid presents the appearance of serum. A mixture of blood and serum is met with in other cases, and in one case which I treated, the fluid resembled the synovial more than any other.

When the cyst is superficial, it is often thin, smooth and can be raised so that the fingers will pass between it and the cervical fascia; but when deeper-seated and of long duration the cyst becomes by pressure indurated, particularly at the base, which remains for a long time after the cysts have been obliterated.

M. Taylor, whose condition is represented by the photograph, had been suffering for several years from a tumor on

the right side of the neck, and had been treated a long time for goitre or bronchocele. The cyst was large and indurated at the base. The pressure it made upon the trachea was so great that he constantly suffered from a cough, particularly when in the recumbent position, and his general condition was anything but satisfactory and encouraging.

Upon making a careful examination, instead of a goitre a hydrocele was discovered; and I convinced him of the correctness of the diagnosis by the use of the exploring needle. He was persuaded to be operated upon before the medical class in 1864. When on his way to the college, a physician, who was a friend of his former surgeon, made a strong effort to deter him from submitting to the operation, in doing which he no doubt was conscientious, as he thought. The thyroid body was involved, and consequently any operation might prove fatal. An incision about an inch in length was made near the inferior portion of the cyst, a piece of wet lint sufficiently large to fill the opening was introduced, the water dressing was applied, and a sufficient quantity of Sulph. Morph. was administered to prevent pain. The operation was followed by great constitutional disturbance, which did not subside until suppuration was established. The discharge continued about two months, and an indurated mass above the sternum was the only evidence of disease that remained. He then left California, and after being greatly exposed in the State of Nevada, he returned in two years with another cyst upon the upper part of the neck, but not so large as the original. His general health was greatly impaired, and the cough had not only returned, but was even more violent than before the first operation. Being satisfied if the tumor was not removed, that its consequences would prove speedily fatal, an opening was made, a tent inserted, and the treatment pursued before was continued until the cyst was obliterated and the external wound healed. Equal parts of Tinct. Iodine and Arnica were applied externally until the induration disappeared. The cough gradually subsided, his general health became good, and recently he presented me with the photograph, which represents his present condition. When required to treat

superficial cysts on the neck, they may be removed either with the knife or obliterated by injecting equal parts of the Compound Tincture of Iodine and Water, which, if allowed to remain five minutes, will generally have the desired effect. But when cysts form under the cervical fascia, I am satisfied that the course adopted in this case is much less dangerous than any other that has been followed. I have treated five cases in this State; four have recovered and the fifth, a lady, is improving rapidly, although she was confined to her room by pain until suppuration was established.

ART. II.—*Traumatic Tetanus Successfully Treated by the Bromide of Potassium.* By CEPHAS L. BARD, M.D., San Buenventura, Cal.

F. S., *æt.* fifteen, daughter of a farmer, during the latter part of April, 1872 stepped upon a bone, the vertebra of a hog, and although the wound produced was deep and bled profusely, yet it healed rapidly and caused but little inconvenience. Five or six days subsequently, she complained of pain in her temples, of stiffness of her jaws, and of difficulty in opening her mouth, which symptoms were attributed by her parents to a bad cold, and treated accordingly. Becoming worse a neighboring physician, Dr. C. W. Thacker was summoned, and three days later I was called in consultation. I found all the pathognomonic symptoms of traumatic tetanus present, a rigid contracted condition of the body, which was bathed with a profuse sour perspiration; opisthotonos; spasms at short intervals; aged expression of countenance, with the *risus sardonicus* well marked; temperature of body 105°; terrible pain in the epigastrium due to spasm of diaphragm, which, by former writers was regarded when present, as the death warrant to the patient; pulse normal and mind clear. Retention of

urine, and constipation of the bowels, were also among the symptoms present. There was no pain whatever, at the site of the wound, which, to all appearances had kindly healed, the cicatrix and its surroundings being perfectly firm, and but slightly indurated. Prior to my arrival, nothing but morphia had been given, but the symptoms became more appalling, and the intervals between the exacerbations were much shorter. Having laid open the wound situated in the inner plantar region of the foot, I discovered and removed a small spicula of bone, the tip of the spinous process of the vertebra upon which she had stepped, and which was firmly imbedded among the muscles of her foot. The use of stimulants and nourishing articles of diet were ordered; the warm bath; poultices to the wound; and the Bromide of Potassium, commencing with thirty grains, given every hour, till four doses had been taken, when both the quantity and frequency of administration were lessened. A decided amelioration of the patient's condition almost immediately occurred. The spasms became less powerful and less frequent; the opisthotonos and rigidity of the muscles disappeared; the temperature of the body resumed its normal standard, and she slowly, but gradually recovered, although the trismus which was the last symptom to vanish, existed for three weeks later. During this time, she continued to use the bromide, the whole quantity taken amounting to three ounces. No bad effects whatever, from its protracted use were noticed, and she is now in the enjoyment of the best of health, enhanced, no doubt, by the recollections of the severe ordeal through which she has passed.

During the last few years, this salt has been successfully employed by different members of the profession, in several cases of tetanus, and its use, in my hands, only corroborates the testimony of others.

The pathology of tetanus is obscure; some investigators observing no lesions whatever, others have noticed a congested condition of the membrane enveloping the spinal cord, of the neurilemma of the nerves at their origin and at the site of the wound, when the affection is traumatic.

Lockhart Clarke and Dickinson, who perhaps, have pursued their investigations more closely than others, discovered softening and disintegration of the gray matter of the cord, accompanied by extravasations of blood, caused no doubt, by an abnormal condition of the blood vessels. They concluded that the tetanic spasms are not solely due to these lesions, which exist also in some other disorders of the nerve centres, but to an abnormal, excitable state of the gray matter, induced by the hyperæmic condition of its blood vessels, and also, by the constant irritation of the peripheral nerves. Accepting this theory, no agent could be more suitable, in my opinion, than the Bromide of Potassium, a vascular and nervous sedative, and whose use is chiefly predicated upon its power of diminishing hyperæmia. It is not claimed that it is a specific, but that it deserves to be ranked as one of our most potent agents in the treatment of such a formidable malady, and deserving of the confidence of the profession.

Institutes and Practice of Medicine.

ART. III.—*The Miasmatic Diseases of California.* By J. CAMPBELL SHORB, M.D., San Francisco.

(Continued from Page 333.)

In our last paper, which was designed simply as an introduction to a proper consideration of that form of miasmatic disorder known as the Town Fever, we sketched in a general way, the prominent causes of the malady—causes which have become notorious, generally recognized as such by the profession, but not understood by the public at large, at least to the extent of inspiring them with a desire to avoid unhealthy localities, or to institute measures to reclaim them. We know the belief, more or less vague in its character, is widely entertained, that in this city, malaria of various degrees of concentration is found, but its site and causes are, even with a large number of the medical profession,

buried in the deepest obscurity. The reasons are obvious enough. With the existence and operation of paludal poison are almost inevitably associated a high temperature, visible marshes filled with animal and vegetable matter in a state of decomposition, and certain peculiarities of soil, supposed to favor the retention of water or moisture, and thus lengthen out the period during which the *materies morbi* is abundantly generated. No such incidents are observed here. We have a city, the temperature of whose climate the year round is comparatively low, lying on a sandy peninsula, upon which the winds from a cold ocean are forever playing, surrounded almost completely by salt water, perched on many hills, on whose steep sides water cannot long remain as a condition for the evolution of disease. It is very hard, in the face of all these facts, directly opposed to an experience gathered in other parts of the world, to look upon our city as the abode of malarious exhalation of a singularly interesting and important character. Nevertheless, the fact is patent enough; we have here a disease whose inception, progress, symptoms, termination, and treatment, point unmistakably to its origin; and no matter how we may theorise on the subject, or how obscure or undiscoverable the hidden springs from which this morbid process draw its maintenance, its nature cannot be disguised or misunderstood; and as a corollary to this proposition, comes the feasibility of its ultimate extinction, by the means which science plentifully supplies, when patient, earnest, fruitful search shall have revealed the object to which our remedies may be directed.

It may appear to a number of the physicians here, that our effort to elucidate the complicated problem, which forms the caption of the present treatise, is like "carrying coals to Newcastle." Still, even they may find their memories, already laden with facts touching this important subject, refreshed by the recital of an experience, which, though extending over comparatively a short period, has been earnestly and laboriously conducted. But we are not writing for them alone. We are daily receiving from the Eastern States, in fact, from all parts of the world, new additions to the medical confraternity, to all of whom our miasmatic diseases will appear puzzling and intractable until experience, which is a slow teacher, shall have revealed their nature, and demonstrated the appropriate treatment. Besides, it seems our duty so to enlighten public opinion on such subjects as will enable it, when the opportunity offers, to appreciate the just value of any scheme of reformation, and by its pressure, which intelligence renders doubly forcible, effect its accomplishment.

As a necessary prelude to any efforts the profession may make to arrest the prevalence of this universal malady, it is imperatively necessary to consider all the causes, direct and indirect, from which it springs. In our last paper we spoke of such causes of disease, as are evolved from the natural peculiarities of the surroundings where it occurs. As a type of such causes, we may mention those natural, but unwholesome reservoirs of water—lagoons—which are found to the north and east of the Presidio road, beyond Polk street. These pools, which have no outlet, save in evaporation, are walled in from the bay by high mounds of sand, and receive during the prevalence of the winter rains, the aggregated detritus of many hills—a complicated compound of animal and vegetable matter. When the rainy season is over, and the warm noons of summer come, these pools become foul, decomposition slowly goes on, and the surrounding atmosphere grows pregnant with poison, and moved by currents of air in many directions, it gives birth to a numerous progeny of miasmatic disorders.

In the production of such causes of disease, man was entirely unconcerned. Malaria was generated in such localities when herds of wild cattle and elk browsed unmolested in Yerba Buena, before Sir Francis Drake dropped anchor in these waters—before the pious Fathers built their first mission, or asked their first blessing on the new El Dorado. But rolling to the west, following the light of the Star of Empire, or lured by visions of the sudden acquisition of fabulous wealth, a tidal-wave of emigrants has made populous these once lonely shores. By degrees they have learned that Nature, by some slight obliquity in her usual kindly care, has left exposed sources of distemper and of death in their midst. The Spirit of Progress is here, with all its wondrous inspiration, and Science, responsive to the humblest invocation, offers her assistance. We feel sure they will avail themselves of these advantages, accomplish the little that Nature has left undone, and make this metropolis the healthiest city in the world.

Before we go on to speak of such causes of disease as flow not from any natural defects in our surroundings, but from such changes as public improvement has made necessary, it seems proper to call attention to one fact, the importance of which is beyond exaggeration. As one after another, we survey the sites where waters still lie, or formerly laid, with probably only a crust of sand upon them now, and study the relations of these sites with adjacent localities, we are always struck with the facility with which they may all be drained, and at slight expense compara-

tively, considering the object for which such an expenditure would be instituted. Some time since, we had occasion to make some inquiries respecting the relative height of certain portions of the city of San Francisco, and learned, on excellent authority, that Hayes Valley was forty feet higher above the level of the sea, than Fifth street is at its junction with Market. Hayes Valley embraces a very large area of hundreds of acres, inclosed by Market, Larkin, and Turk streets, running back as far as Fillmore street. In this valley collected the waters washed down from the many surrounding hills, forming large pools, many of which have been filled in within the last five or six years. Until recently, there was no escape for the water; and even now, though to a considerable extent, it is hidden from sight, the soil is percolated, during the dryest portions of the year, to within a few inches of the surface, plenty near enough to assist in the evolution of paludal poison, and its train of morbid processes. What is true of this portion of the city, is applicable to every locality where we have been able to discover, the malarious influence is felt, and with the fall it has in two directions, to the east, and to the south to Mission Creek, via Eleventh street, no one may experience any difficulty of realizing the facility with which it may be drained completely, and made, as it really deserves to be, a beautiful and attractive feature in our city.

A most intimate knowledge of the topography of our city, to which we are not altogether a stranger, would be required to enable us to point out and describe all the sources of malarial influence that exist here, sources springing from a series of physical accidents, altogether unconnected with the presence or operations of man. These must be learned by experience, and the rule we laid down in our last paper, comprehends all that is necessary as a point of departure for future explorations in this most interesting field of inquiry.

We propose now to discuss such causes of this morbid process as are, in part, the result of certain natural defects, and, in part, the outgrowth of changes established in conformity with the development and improvement of the city. Answering in every respect this description, is that very concentrated malaria which is generated in the morass which, interrupted once or twice, commences at Valencia street, extending between Seventeenth and Eighteenth streets, to Mission Creek. Some one or two years ago, there was built across this morass, an extension of Howard street—a causeway over which the cars now pass. This became a

dam, and in order to give a vent to the large quantities of water which it was known would collect here, a culvert built of planks was thrown under the causeway. The enormous weight of stone and earth necessary to make the road a substantial one, pressing down upon the culvert, caused it to weaken in the middle, while the extremities, free from any pressure, were canted up probably ten inches from the horizontal line, and as many above the level of the morass. The accident to the culvert involved the retention of a large quantity of water in the marsh above—parts of which were covered, and parts perfectly exposed to wind and sun. The stench which on still, warm nights in the past autumn, rose from this locality, was intolerable, and the malaria generated here, was excessively pestilential. As violent a case of pernicious or congestive fever as has ever been our misfortune to attend, occurred on the edge of this morass. The conflict between quinine, given in enormous doses, and the paroxysms was stubborn to a degree, and it was not until the patient was removed to a more healthy neighborhood, that victory declared in favor of the former. Other morbid processes witnessed here, inflammatory affections of the pulmonary apparatus or the intestinal canal, intoxicated with the prevailing poison, became excessively difficult to manage. Relapses were of frequent occurrence; the attack took on the peculiarities of the Lernean Hydra, and seemed endowed with reproductive energies never witnessed before.

Any one, whom business or pleasure has taken to the leeward of the Willows, beyond the Mission, within the last two or three months, will recollect the intensely sickening stench which seemed to load the atmosphere, proceeding from a collection of foulest water, dammed by an embankment yet in the process of construction. A black, green scum had settled on the surface of the noisome pool, and on one occasion, when urged by curiosity to make a close inspection, we found the waters absolutely quivering with the motions of myriads of animalculæ, such as are always found in connection with putrefaction, and we almost shuddered when contemplating the ghastly pestilence, which, rising like a destroying Genius from the putrid waters, might stalk abroad, hurling defiance in the face of medicine, bring death and desolation to innumerable homes.

Far be it from us to say aught against a ready coöperation with the promptings of the Spirit of Improvement. The miracles it has worked in revolutionizing industry, in ameliorating human suffering, and bettering in countless ways, the condition of the human family, invest it with attributes

almost too sacred for criticism, and while all petty considerations should yield to its resistless march, we have a right to put in our protest against the useless sacrifice of human life. The mighty chariot of Progress is not the car of Juggernaut, crushing to death whole armies of devout believers. Whirling through the ages with a noise and velocity grandly terrible, in the final consummation of its mission, it is as harmless as the flight of a meteor; and when its path is marked by the destruction of human life, we may safely conclude the fault will always be found in the carelessness or culpable ignorance of mankind.

In the management of our improvements here, the least foresight exercised by that deliberative body, to which the care of the public health is intrusted, would shield us from every disaster involving loss of health and life. A strong stone culvert, deeply laid under the Willows embankment, as a preface to the improvement there, would have made the work as free from danger as the blowing of flowers, or the singing of birds.

We come now to consider another class of causes concerned in the production of the Town Fever—a class more circumscribed in its operations, but at times singularly deadly in its visitations. A great mistake has generally been made by the profession, in supposing that a great extent of marsh is necessary to generate that poison which finds expression in the different miasmatic processes. Of course where large communities are prostrated through the influence of paludal poison, we will almost always find a large area concerned in its production; but this rule does not obtain in individual cases. We believe there arises from any given point of a marsh exhaling malarious miasmata, sufficient poison to affect the system, if the exposure be long enough, and we reject all such silly notions as would point to the aggregated miasmata of the entire marsh as the sole cause of the distemper. When individual cases occur, examination will reveal the cause sharply localized—circumscribed probably, by a diameter of ten or twelve feet—overwhelming those who live within the immediate scope of the poisonous influence here generated, while the neighborhood enjoys perfect immunity from any such visitation. Though the cause be circumscribed, it gives rise to symptoms as formidable as those found in connection with more comprehensive causation, and its isolation may have the effect of leading the mind off from the contemplation of its exact nature and appropriate remedies. In the class of causes to which reference has just been made, are included all those which the ignorance or carelessness of man allows

to be developed on his own premises, jeopardizing the safety of his own family, perhaps that of his immediate neighbors. These causes are legion, and in our attempt to point out the prominent ones, as they have occurred from time to time to us, we are conscious of presenting only a guide which may enable others laboring in the same field, to make valuable discoveries, and most substantial additions to the fund of knowledge which we already possess on the subject. To be precise in the location of these causes, we may state they are found, as a rule, in the method of disposition of refuse water used in families, the particular arrangement of water closets and privies, the condition of the foundation on which dwellings are built, residence in a room immediately over a space filled with damp air, closely confined, and the occupation of a chamber against one or more walls of which, rest quantities of damp sand or earth.

We recollect attending a case of Town Fever, singularly violent in its character, on one of the highest rocky eminences to be found in our city. We cite this case merely to demonstrate that it is not only in the valleys and lowlands we must be prepared to meet this disease, but also in elevated localities, where health ought surely to reign—where the purest air from Heaven is constantly refreshing the atmosphere—"where," to quote the words of the poet, "every prospect pleases, and only man is vile;" vile, because he is constantly thwarting Nature in her efforts to render his surroundings perfectly healthy; vile, because he prefers filthiness and disease to cleanliness and health.

[TO BE CONTINUED.]

ART. IV.—*Intussusception.—Obscure case.—Paper read before the San Francisco Medical Society*, July 9th, 1871. By J. F. MORSE, M.D.

In all my experience I do not remember a case involving greater perplexities of diagnosis, or in which the moral relations of the patient were more painfully interesting than the following:

The subject was an only child of Mr. G., a son, aged three years. He was indeed the only child of a household con-

sisting of two brothers-in-law and two sisters-in-law, every member of which was imbued with an intense love of children. It would have been nearly impossible to have determined by observation which were the real or foster parents. The child, though pale and delicate, had never had any serious illness.

During the first of February he had not been as well as usual, his appetite was more variable, he occasionally vomited his food, and had a slight cough. On the 8th he obtained access to some cocoanut, and ate so freely of it as to provoke vomiting and purging. On the 10th the father spoke to Dr. Prevost about what had occurred, but as the child seemed better, no medicine was given. On the 14th the irritability of the stomach recurred, and the father brought him to our office. (He had also a slight paroxysmal cough, which left him after first prescription.) He seemed perfectly free from pain or abdominal tenderness. As a relief from these paroxysms of pain, I prescribed Sub-nitrate of Bismuth in suspension with Batley's sedative. This seemed to act well, but on the 19th he was again attacked with strong paroxysmal pains of the bowels. A careful examination of the abdominal viscera, which could be made easily in consequence of the extreme flaccidity of the abdominal walls, revealed no signs of tenderness or complaint. There had been some indications of irritability of the bladder, and I prescribed Bromide of Potassium, Hydrocyanic acid and sweet spirits of Nitre. On the 20th, Dr. Prevost saw the child with me; he was much relieved and the medicine was continued. On the 22d, Dr. P. saw him again, and he was so well that visits were suspended. On the first of March, Dr. P. was called to see the patient, and found him suffering from symptoms of indigestion. He prescribed Aitkin's compound syrup of Phosphate of Iron, with extract of Hyoscyamus and Pepsin. He saw him again on the 3d and continued the tonic. On the 7th and 8th I called, and as the bowels had been a little torpid, gave an oleaginous mixture, with a small quantity of spirits of Turpentine and Bromide of Potassium. On the 10th I found the bowels had been freely moved giving great relief, and to prevent the

recurrence of pains, I resumed the former Potassium mixture which had always been the most salutary. On the 15th he appeared well, but was still liable to recurrent paroxysms of gastric pain with griping. Up to this time the freest palpation gave no evidence of soreness, pain, or any local abnormity. The aunt informed me, however, that when these fits of pain and griping came on, the bowels became hard and knotty. I asked to be sent for, if possible, in time to see him in one of these paroxysms, and on the 25th saw him just as one was passing away. This time upon examining the abdomen, I discovered a hard, rounded, oblong tumor about two and a half inches in length and one and one half inches in breadth, lying obliquely across the right hypochondriac region and extending into the umbilical space. It was very movable, entirely free from sensibility or tenderness. The aunt said she had felt this before, but that it disappeared entirely for days at a time. The bowels were perfectly solvent and the dejections normal. The next day I examined the patient again, and could not by any possible palpation or position discover the tumor. It seemed to me that it must be a floating kidney thus appearing and disappearing so completely in so short a time. On the 27th, the following day, it again appeared, but so entirely changed in position, that I desired them to call another physician to examine the patient with me, and the next day, the 28th, Dr. Lane saw the case, in consultation. After a full history and careful examination, including the most complete palpation without eliciting irritability, pain or tenderness, we felt it impossible to arrive at a satisfactory diagnosis. The previous mild purgative having had a good effect upon his paroxysmal pain, we repeated it. The 29th his medicine had operated well, and on the 30th Dr. L. saw him again. An application of Potash ointment and an internal alterative tonic were agreed upon.

Through the month of April I saw the patient but twice, and he seemed at times improving and again relapsing. I saw him the 2nd of May, the last time before his removal to Auburn. Shortly after his arrival in Auburn he was attacked with serious pain, fever and irritability of the bowels.

Dr. DuBois, who was called to attend him, examined the abdomen and wrote me that he thought the case to be an abscess of the transverse colon. On the 7th I received the following letter from him:

AUBURN, May 7th, 1872.

J. F. Morse, M.D.:—Dear Sir and Friend:—Yours of the 2d came to hand on the 5th. Was glad to hear from you, as I had been expecting some suggestions and directions as to the treatment of little Harry G. He appears much better than when I first wrote. The fever is nearly gone; his appetite is better and he seems inclined to play more. Considerable matter mixed with blood, comes away with his stools, especially in the early morning. The tumor varies some in size at different times. This morning, I had an opportunity of examining it before and after a passage, and the size was sensibly diminished, after the movement of the bowels. It appears to be irregular in shape, oblong, a little obliquely transverse, and reaching from two to three inches to the right of the umbilicus across the abdomen; its length being variable at times, from five to seven inches, and two or three inches in thickness. I prescribed for him an alterative tonic of iodide of iron, elixir calisaya and syr. prunus virg.

With much respect, I remain now and ever your pupil and friend. A. S. DUBOIS.

P. S.—Of course I shall be glad of any suggestions you are inclined to make in the case, and expect you to be quite definite as to your ideas of treatment, and I will carry them out to the best of my ability. A. S. D.

On the 14th the Doctor reported the patient much worse, and from this time there was increased suffering and loss of strength, until death relieved him on the 3d of June.

At my request, my friend, Dr. DuBois, assisted by Dr. Todd, made a *post-mortem* examination, the result of which I will read to the society:

AUBURN, June 7th, 1872.

Dr. J. F. Morse:—Dear Sir and Friend:—According to promise I write you about the *post-mortem* examination of

little Harry G. Dr. T. M. Todd and myself made the examination four or five hours after death. Death was from inanition, the body being emaciated to an extreme degree; the liver was a little enlarged and somewhat softened; the spleen and kidneys were normal; the bowels were healthy, except at the place of intussusception; a portion of the ileum had passed through the ilio cœcal valve and formed a mass about two inches in diameter and four inches in length, which lay in the colon, a part of the ascending colon having been drawn into itself, and so altering its natural position that the mass lay diagonally across the body in the colon, thus forming a double intussusception as described by Dr. J. L. Smith in the *American Journal of Medical Science* for Jan, 1862. The mass being movable, had enlarged the whole transverse portion of the colon and thickened its walls, so that, at times, when it was full the tumor seemed six or seven inches long by three inches broad; the sloughing had opened a communication from the ileum into the colon, at a knuckle or bend of the intestine, about three inches within the colon; the portion of intestine occluded was formed into a solid mass by the lymph effused on the peritoneal surfaces and into the cellular tissue; it was smooth on the upper surface, but underneath, gangrenous, and quite large pieces had sloughed and been passed at stool, with some blood, and much straining at short intervals every day from about the tenth to the nineteenth day of May. During this period, also, there was quite severe inflammatory fever simulating dysentery. About the nineteenth of May the fever subsided and no more blood passed, but instead, matter and gangrenous pieces, many times daily, with straining and nausea, until death. Pain at short intervals was a constant symptom from the time I first saw him in April. The treatment was from the first supportive.

Very respectfully,

A. S. DUBOIS.

Gynecology and Diseases of Children.

ART. V.—*Premature Artificial Labor.* By DR. ADOLPH ANDREI, M. D., San Francisco.

Following the obstetrical clinic of the distinguished Prof. Depaul, of Paris, a favorable opportunity was presented of observing a premature accouchement artificially produced for the second time on a single subject; the first labor having taken place in the month of April, 1865, in the eighth month of the pregnancy; the second on the 15th of February, 1868.

This last attempt was crowned with complete success: the infant lived and the mother was saved; a result which had not been obtained the first time, for reasons which we will give hereafter.

In the clinical lecture which preceded the operation, Prof. Depaul, besides a brief description of the applicable modes of operation, called the attention of his auditors to the indications for this sort of interference, enunciating the abnormalities of conformation of the pelvis as the most precise, and certainly the most incontestable indication. He spoke next of the exact limits of constriction, within and beyond which the premature artificial labor should not be undertaken. He mentioned that, in theory, the solution of such questions had been already almost accomplished, but that the difficulties were augmented in practice, and that this was why practitioners were not able entirely to agree upon the maximum and minimum of extension which should be allowed to the pelvis.

The solemn importance of this operation—triumph of art over so many prejudices, as well as over a false marole, and the difficulties of the operation, as great in the precise diagnosis of the degree of the distosis, as in the choice of the most suitable means of its performance—have induced me to study, historically and clinically, artificial premature labor in relation with the abnormalities of the pelvis.

Premature artificial labor is a discovery entirely modern. It was in the last half of the past century; an epoch when bloody operations practiced on the mother, agitated questions in Europe which were discussed with ardor, and it was attempted to reduce the frequency of such operations, that a few practitioners attempted to provoke labor prematurely. On the other hand, observation demonstrated that Nature exercised the precaution of causing labor before the term in cases of contracted pelvis, when, at term, the accomplishment of labor would have been impossible.

"Nature," said Velpeau, "often does that which art seeks to render general. She furnished the first information on this subject. If some women sufficiently unfortunate to have made *accouchements* of dead children in consequence of a vicious conformation of the pelvis, should finally give birth, without aid, to a living fœtus, it can ordinarily be attributed to the fact that the infant was born before term in the stated instance, and that it is less developed than usual; premature artificial labor is, then, only an imitation of nature." (1)

To England is due the credit of having first raised the question of premature artificial labor and to have put it into practice. In 1756, according to the reports of Denman, many celebrated physicians of London, in consultation, were of common accord that this practice was advantageous and was approved by the principles of morality. (2) A short time after, the opportunity was presented to Macaulay, and he practiced premature artificial labor for the first time with happy results. After Macaulay, Kelly made this operation several times, and, among others, three times on the same subject, of which he was able twice to preserve the infant's life. Later, John and James Barlow, next Ramsbotham, the two Merrimanns, and others, also made this operation, with greater or less success.

Finally, at the commencement of this century a sufficiently large number of cases had occurred to so encourage practitioners that the operation passed into general practice in

(1) Velpeau. Traite des accouchements. 1835. p. 369.
(2) Denman. Introd. à la pratique, t. 11, p 222.

cases of contracted pelvis, and the Cæsarean operation and Symphyseotomy were almost entirely abandoned. This method passed quickly into Germany, where May, professor at Heidelberg, published a memoir in 1779, recommending premature artificial labor. In 1804 Wenzel first had recourse to it with complete success, and he published a work entitled *Considerations sur l'accouchement Prematuré Artificiel*, which met with a large number of adherents. After him, Kraus, in 1840, practiced this operation also with success. Among the German *accoucheurs* who adopted this method, Reisinger should be cited, who published, in 1820, a book pointing out precisely the indications for this operation.

From Germany the method passed rapidly into Holland and then into Italy, where Ferraria published in 1829 the *Compte reudu de la Clinique du Prof. Levati de Parie*, (1) in which he mentions six observations of artificial labor which were very encouraging since the only infant which was dead, had been born apoplectic with the cord tightly wound around the neck. Cisinelli and Bili di Milano had also good success. In Denmark, America, Switzerland, and Poland, the periodicals gave very interesting observations on this subject. France alone, for a long time, still rejected this practice, and its introduction was the more difficult, because it was not only necessary to conquer medical opinions, but also the disconnected question of religious fanatacism. That which also contributed to render artificial premature labor scientifically inacceptable was the frequent confusion between it and abortion.

What, then, is the end to be attained by premature artificial labor? It is not only that the mother may avoid a painful operation, which will place her life in danger, but to save the child, which, in the majority of cases, is condemned to certain death unless premature labor is brought about. Abortion, on the contrary, is practised that the mother may be saved from almost certain death in sacrificing the life of a fœtus not vet viable. "In the premature artificial labor "(says Reisinger) nature makes all the exertions, to which "art only gives a slight but sure impulsion; in the forced

(1) Clin. de Padoue Journal Compl., t. xxxiv.

"accouchement, on the contrary, art acts alone, and all that "nature concedes is necessarily only obtained by force." The question as to whether it is morally right to provoke labor before term, has furnished material for discussion of the greatest importance. Notwithstanding this scientific, social and religious opposition, the idea had been entertained, even in France, of provoking premature artificial labor. Thus, Roussel de Vanzesme proposed, in 1779, in order to avoid pubic section, to provoke labor artificially at the seventh or eighth month of pregnancy. He says, however, that this idea had been suggested to him by Levacher de la Feurtrie, whilst Sue[1] attributed it to Petit. Although neither he, himself, nor any of his students had made mention of it. Indeed, this idea was only communicated confidentially, and no one dared to vindicate it in public. Only a little later it was taken up by Lauverzat, but with timidity. "This method," said he, "which it would be criminal to abuse, "should not be absolutely abandoned, because by it, in cer-"tain circumstances, the mother may be saved, and also the "life of the fœtus, which, otherwise, would be compromised." In 1781, Baudelocque, in his work, declares himself to be passionately and blindly against premature artificial labor. He exaggerated strangely the dangers to which this operation is exposed, and adds that in case of hæmorrhage, it (artificial labor) might become a duty, but that it was a crime in case of contraction of the pelvic straits. Finally, Capunn qualified the operation as an attempt against human and divine laws. Baudelocque maintained that one of the greatest difficulties was to recognize the exact period of the pregnancy. He pretended also, that before term, the neck of the uterus is not prepared to submit to dilatation. Prof. Paul Dubois, in his competitive thesis (1834), seems to answer this preconceived idea of Baudelocque, by remarking that in premature spontaneous labor, the neck is no more prepared than when the accouchement is provoked artificially. Finally, it is only quite lately (1832 and 1835) that the publications of Dezeimeris, Dubois and Velpeau, causing this operation to be better understood, triumphed

(1) Essai historique sur les accouchements, vol. I. p. 606.

over all repugnances, and prepared the medical mind for its acceptance. In 1831, Stoltz, Professor of the Faculty of Strasbourg, practised, at the same time as Velpeau, premature artificial labor. To the thesis of P. Dubois, in 1834, is due the impulse received by this method, which was practised by himself in February, 1840; by Nichet, at Lyons, in the month of August of the same year, and in Belgium contemporarily by Van Huerel. After this date, all doubts have ceased, and to-day this practice is approved by Cazeaux, Moreau, Depaul and Pajat, who have largely contributed to its vulgarization. It is really strange that practitioners have, during so long a time, condemned this method, which is one of the most beautiful operations of the obstetrical art, whilst they have not shrunk from Cæsarian section and Symphyseotomy. Placing aside all reasonings, let us compare the results furnished by the latter operations with those given by artificial labor, and we shall see that the figures are in favor of the modern method, and numerous and conclusive facts demonstrate its advantages and its freedom from danger.

Premature Accouchements. Velpeau reports, in his work, an extract from Kelian. The operations referred to, were practised in England, Italy and Holland.

Number of cases, 161; number of mothers who died, 8. Number of mothers who were saved, 153; number of infants dead, 43; number of infants born living, 115, of whom 73 survived. From 1832 to 1843, Ramsbotham made 16 operations for premature labor, 9 of which were successful. (1)

In 1852, Rodenberg published a memoir on premature artificial labor, furnishing the following statistics of observations: Number of cases, 18; mothers saved, 16; mothers dead, 2; infants born alive, 14; infants born dead, 4; infants which survived, 7.

In 1850, Doctor Clazure, son of d'Angoulême, published the following statistics of cases: (2) Number of operations, 280; number of mothers saved, 274; number of mothers

(1) Archives de Medicin, 1844, t. VI., p. 237.

(2) Abeille Medicale, 1850, p. 9.

dead, 6; number of infants born alive, 166; number of infants born dead, 114.

As a *resume* of all the cases thus collected, we have: number of operations, 475; number of mothers saved, 459; number of mothers dead, 16; number of infants survived, 304; number of infants born dead, 171.

Let us now see what are the results furnished by Symphyseotomy and Cæsarean section.

Symphyseotomy. Merrimann mentions 44 cases of Symphyseotomy, of which the mothers died in 14 cases, and 29 infants died; among the women who survived, many preserved an immobility of the bones of the pelvis. Baudelocque cites 30 cases, of which 11 infants were saved. Finally, Dr. Clazure, son of d'Angoulême, has published the following statistics: Number of operations, 157; number of mothers saved, 85; number of mothers dead, 72; number of infants saved, 5. Thus we see that about half of the women die after the section of the Symphysis of the Pubis.

Cæsarian Section. In the statistics of Clazure we find: Number of operations, 490; number of mothers saved, 124; mothers dead, 366; infants saved, 76. Though almost two thirds of the women died, the operation was thought to appear to be indicated! Duges, Velpeau and La Chappelle regarded these results as much more favorable than ordinarily follow Cæsarean section. The statistical comparison between Symphyseotomy, the Cæsarean section and premature artificial labor, either as to the child or the mother, shows the superiority of the latter method. The imperious eloquence of facts has served at last to overthrow all theory suggested by imaginary dangers and party spirit, and the world to-day accepts the operation of premature artificial labor. The synthetical study of this operation is essentially constituted in the solution of two fundamental questions. Which are the cases in which premature labor should be induced? What is the best operative procedure? As before stated, the vices in the conformation of the pelvis constitute the principal indication, and we may say have, by their frequency, forced practitioners to seriously study the question of premature artificial labor. The presence

of tumors developed in the pelvis, by diminishing the pelvic capacity, may furnish an indication for the operation, in spite of the non-existence of a vicious conformation. In this regard it should be stated how difficult it is to fix the indications for premature artificial labor, on account of the uncertainty and vagueness, in many cases, of the diagnosis of tumor. When the obstructions of the pelvis are produced by tumors not in connection with the bones or the peroisteum, that is to say are movable, they do not offer a decided indication for premature labor, and are of a nature often to compromise the results. If solid, immovable, or slightly movable tumors reduce the allotted proportions of the pelvis, the advantages of the operation may be depended upon, and recourse should be had to it as readily as if an actual constriction existed. The diagnosis of these tumors, then, offers not only the difficulty of determining the causes by which the pelvis has been contracted, but they are even liable to be overlooked, and the condition entirely due to the presence of a tumor, may be inadvertently considered as a true vice of conformation. The error of diagnosis, in such cases, is not only not rare, but may be committed by the most experienced and distinguished men, as the history of the following observation will prove:

[TO BE CONTINUED.]

ART. VI.—*Subinvolution of the Uterus.* By C. T. DEANE, M. D. San Francisco.

So little being said in medical journals, at present, on the above subject, I report the following case with pleasure:

Mary E., *æt* 37, was admitted to the San Francisco Female Hospital, Feb. 3, 1872. She was anæmic from loss of blood, complained of a pain over right ovary which sometimes extended down the leg to the knee, of headache, loss of appetite, menorrhagia lasting two weeks or longer,

light watery leucorrhæa, constipation and general debility. She had been married ten years, had three children, the youngest being now two years old, and since its birth has had more flow at the menstrual periods than formerly. On examination next day, the uterus was found enlarged and sensitive, position normal; there was a slight erosion of os, and the sound entered a distance of four inches. The increased size of the organ, the existence of hæmorrhage and the date of its first appearance, satisfied me that the case was one of subinvolution and I at once determined to treat it by allowing a piece of solid nitrate of silver to dissolve in the womb; accordingly, by aid of Simpson's *porte-caustique*, I introduced a piece weighing grs. viij and placed it in contact with the fundus, applied cotton saturated with Glycerine over the os, had her placed in bed and gave Morph. Sulph. grs. j. For four or five hours after the application, the patient complained of some pain, but she soon dropped into a quiet sleep, which lasted the night.

Feb. 5th. Changed cotton in vagina. Ordered for diet, egg and beef tea with bread. Directed an enema to operate the bowels.

Feb. 10th. By sound, the uterus measures but three inches.

Feb. 23d. Menstruation began with very little pain, and continued until March 1st. Since this time I have seen the woman frequently, her menstruation is normal and general health good.

The theory of this treatment, which many practitioners may think dangerous, is simply the following. The involution of the uterus being arrested from some cause, (frequently the too early getting up after child-birth) the Nitrate of Silver acts as an exciting cause to contract the fibers of the womb and compel it to continue the work of nature. I have never seen any ill-result from introducing the solid stick of the caustic, although I do not pretend, for a moment, to say that it might not be followed by perimetritis; but as one of the principal symptoms (hæmorrhage) of the complaint we are treating is fatal, we are justified in taking some chances.

I have other and similar cases in my note book, but the principle being the same in all, this one reported may suffice to recall to the attention of the profession on this coast, the teachings (which some of them may may have forgotten) of the late Sir James Simpson.

Ophthalmology and Otology.

ART. VII.—*Statistical Details of Four Years' Experience in Respect to the Form of Amaurosis Supposed to be Due to Tobacco.* By JONATHAN HUTCHINSON, F.R.C.S.

[From the Royal London Ophthalmic Hospital Reports, vol. VII, part II, p. 169.]

In the year 1864 I published, in the first volume of the "London Hospital Reports," under the title of "Clinical data respecting Cerebral Amaurosis" etc., a report on cases supposed to be connected with tobacco. I then gave all the cases of which I had notes which appeared to resemble the form due to smoking, including a considerable number in which it was quite certain that the habit referred to was not the cause. After this date, I carefully kept notes of every case bearing upon the subject which came under my notice, and, in 1867 the Medico-Chirurgical Society did me the honor to publish in their Transactions, a statistical summary of my experience during the three intervening years. The cases included in that (second) report had been much more carefully selected, and from it several classes, which I had deemed it necessary to mention in my first, were wholly excluded. My recognition of the peculiarities of tobacco cases had also become somewhat more accurate. I now have to offer to the reader a third series of cases of the same kind, including most that came under notice during the four years, 1867, 8, 9, and 70. I regret that I cannot say that during this period I have kept notes of quite all that have been under my care, more especially during the year 1868; but those which have been omitted, have been left out simply from want of time to take notes, not from any principle of selection. Each of my three several reports presents a fair picture of my experience in respect to all cases which could be considered similar to those due to smoking. Each includes a few in which I think it very doubtful whether or not smoking was the real cause. I have been most anxious to give to the reader a fair opportunity of judging for himself as to the clinical features which this form of amaurosis presents in English practice, and of forming his own opinion as to whether the indictment against tobacco is a just one.

Any one who may take the trouble to compare the cases given in these three reports, will be struck by their similarity, and by the remarkable confirmation which the two later papers give to the conclusions of the first. A very great disproportion in the numbers of the two sexes who become the subjects of "idiopathic amaurosis," was one of the facts brought out (for the first time) by my first report. In it the numbers were 37 men and 3 women, and in the second they were 34 men and 5 women. In the present one they will be found to be 28 men and only one woman. There can, therefore, be no reasonable doubt that we have to deal with a formidable type of symmetrical amaurosis which is almost exclusively confined to the male sex. For myself, I may briefly avow that I have scrupulously investigated other possible causes, and that I feel no hesitation in believing that in most of these cases tobacco is the real one.

The facts as regards the one woman whose case is included in the present series, are extremely interesting. Her case in every feature resembled those which in males I attribute to smoking, and upon this point I had made special comment to those who were attending my class. After I had done so, she informed me that one of her sons had formerly been my patient, and that a nephew had been under the care of Mr. Hulke. I referred to my notes, and Mr. Hulke was kind enough also to refer to his, and we each found that the cases had been diagnosed as tobacco amaurosis. In each, the patient was a young man and a smoker. Now the lesson of these facts seems to me to support the opinion I have long held, that when tobacco causes blindness it does so in virtue of an idiosyncrasy. It is by no means improbable that such idiosyncrasy will be found occasionally in several members of the same family, and further, that it may involve liability to suffer from other influences besides tobacco smoking. Thus, then, we have two young men, cousins, attacked by amaurosis at an early age in virtue of an idiosyncrasy rendering them liable to special poisoning from tobacco; and we have a woman, who had never smoked, the mother of one and aunt of the other, at a much later period of life becoming the subject of a similar form of nerve disorder in virtue of the same peculiarity of diathesis acted upon by a different exciting cause. In her, not improbably the exciting cause was the disturbance consequent upon the cessation of menstruation.

Holding the opinion that there must be some preëxisting peculiarity in the nervous systems of those who become the subjects of tobacco amaurosis, I have been very anxious to

discover, if possible, whether it reveals itself by any other signs. The only points in this direction to which I feel at present inclined to attach any importance are the following. Not unfrequently it will be found that these patients have had unusual difficulty in learning to smoke, and have throughout life displayed special susceptibility to its influence, and that also they have often been, beyond the average, liable to suffer from sea sickness. In the tabular statement some information will in many cases be found given on these points. My attention to the matter of sea sickness was first given in consequence of the statements of some patients who were sailors, and who specially referred to it.

We have, during the last few years, made the observation that those who suffer are, almost invariably, smokers of *shag*, the most deleterious form of tobacco. As regards the results from disuse of tobacco my impression is strong, that almost invariably when the disuse is real and complete, the state of vision improves. I cannot exaggerate the expression of my conviction as to the duty of urging immediate and complete abstinence in the early stages of this most serious malady. Many of my patients came too late, having continued to smoke until the disease was far advanced. I have never seen a case in the early stage in which the disease went on to blindness if the patient had strength of will to give up the habit. In a large majority of those in whom, according to the patient's account, the habit was wholly abandoned, I had reason to suspect that it was only reduced. My experience on this point fully confirms that of Dr. Mackenzie, that there are those "who would rather smoke than see." It is very few, however, who have the honesty to admit their inability to give up the habit, and hence a very annoying source of fallacy in our inferences as to the effect of treatment.

It will be seen that in a few cases in the table, the amaurosis set in rather suddenly and advanced rapidly. This fact I always take as a strong one against the diagnosis of tobacco amaurosis, and in favor of that of neuritis. These cases ought, therefore, very probably to have been excluded from the list. As, however, the diagnosis is uncertain, I have preferred to let them stand. It so happens that some of these are the very ones in which no improvement resulted from the disuse of tobacco.

I have to thank my friends, Mr. Waren Tay and Mr. Nettleship, for much help in recording the notes of the cases and in compiling this report:

Number. Date. Reference.	Name. Occupation. State of Health.	Age. Duration of Amaurosis	Use of Tobacco and Alcohol.	State of Eyes.	Other Symptoms.	Progress and Remarks.
1. 1867, January 3. C. p. 94.	John Brewer, bricklayer. Has had good health.	22. 18 months.	Has smoked from a quarter to half an ounce of tobacco daily for five years and a half.	Left eye worse than right. Right sees 20 J. Pupils large, and the right one sluggish. Each dic pale, especially at its outer part.	Has been troubled with nocturnal em'ssions. Denies syphilis. Gradual failure of sight.	1867. March 7. Discs still paler, veins large, arteries small. Vision as before. He now says that he had not smoked for two years before the sight failed.
2. 1867, March 11. C. p. 157.	Samuel Park, shoemaker. Pale, and weak looking.	35. about 2½ to 3 years.	Has smoked for thirteen years; at one time he smoked an ounce of tobacco daily; has left off smoking several times, and resumed it again. Has usually been "worse for liquor" once every few months, but does not consider himself a great drinker.	Vision unequal in the two eyes; right, 1 J. and 20–40; left, 16 J. and 20–200. No material difference with glasses. Discs of a redder color than natural, but otherwise normal. Pupils act well.	History of weakness of sight (probably failure of accommodation) in boyhood. Smoking makes him nervous if he exceeds his usual amount. Sight has varied a good deal within the last two or three years, being, as he believes, worse when he leaves off smoking.	Has several times given up smoking for months together, because it made him nervous (made his hands shake, etc.), but has found that his sight always gets *worse* when he is not smoking. He is convinced that smoking is good for his sight; he gave it up only because it made him nervous.

Number. Date. Reference.	Name. Occupation. State of Health.	Age. Duration of Amaurosis	Use of Tobacco and Alcohol.	State of Eyes.	Other Symptoms.	Progress and Remarks.
3. 1868,	A woman.	43. 6 months.	Had never smoked. Strictly moderate in stimulants.	White atrophy in both.	None of any moment.	The symptoms had come on gradually, just as in the tobacco cases in men.
4. 1868, March 1. C. p. 259.	Moses Garcia, cab-driver. Looks strong and healthy, though sallow.	53. 9 months.	Has smoked from half an ounce to an ounce daily. Has drunk moderately.	White atrophy of both discs.	At the time when his sight began to fail, his general health was bad; he was nervous and weak, troubled with sleeplessness, diminution of sexual appetite, and flatulence. Was obliged to give up his work, and was three months in the Jews' Hospital for dyspeptic symptoms. Has headache across the forehead. Has had gonorrhœa and chancres many times. No wasting of testes.	The failure of sight coincided in time with general failure of health. He had indulged his sexual appetite very freely.

5. 1869, July 8. C. p. 318.	John Thompson, bailiff, in comfortable circumstances. Florid and robust. Hair, sandy-grey.	60. 9 months.	Has smoked for twenty years; for several years only a little; for five or six years past half an ounce a day. Has drunk alcoholic liquors constantly, but in moderate quantity.	Can see only 20 J. Discs white	Has been very nervous for several years, especially after smoking in the morning. Many years ago suffered from "lumbago and sciatica," which laid him up for more than a year on and off. Gradual failure of sight.	1869, *Sept.* 2. Has not smoked at all since he came here. His sight has got worse; cannot now count fingers. Discs both equally and universally white; veins and arteries somewhat diminished. *Sept.* 23. Can barely find the position of the window. Pupils contracted; they do not dilate in the dark, but dilate moderately with atropine.
6. 1869, Sept. 23. C. p. 324.	Wm. Billingham.	35. 6 weeks.	Has smoked at least half an ounce daily. Has drunk moderately.	Vision 20-100 and 12 J. Discs pale at the outer halves; sheath at outer part very distinct, and a little disturbance of choroid. Inner margins indistinct, apparently from tendency to formation of crescents.	Has often noticed a nervousness from smoking. Gradual failure of sight.	

Number. Date. Reference.	Name. Occupation. State of Health.	Age. Duration of Amaurosis	Use of Tobacco and Alcohol.	State of Eyes.	Other Symptoms.	Progress and Remarks.
7. 1869, July 12. C. p. 327.	John Smith, drayman. Dark complexion, and healthy.	45. 3 months.	Has smoked "as much as he could get," chiefly *shag*. Has drunk moderately.	Vision 20–100 and 14 to 16 J. Discs decidedly whiter at outer than at inner halves; inner halves look slightly swollen.	Gradual failure.	1869, *Sept.* 2. Vision 20–50 and 14 J. Considers his sight much better. Has left off smoking entirely. 1870, *June* 30. Vision 20-40 and 8 J. *Oct.* 13. Just sees letters of 6 J. *Dec.* 15. Just sees letters of 4 J.
8. 1869. October 7. C. p. 337.	Thomas Willis, has been a soldier.	42. 2 months.	Has smoked half an ounce daily for twenty years. Has not been in the habit of drinking while he smoked, and for two years has not drunk at all.	Vision 20–200 and 16 J. Discs ill-margined, choroid thin, outer half of each disc decidedly pale; veins full, and arteries not diminished.	Gradual failure.	1869, *Nov.* 4. Vision 20–100 and 14 J.
9. 1869, October (about). C. p. 339.	James Morris, engineer (light outdoor work); a Scotchman. Health good.	40. 2 months.	Smokes an ounce daily of *pig-tail* tobacco. Drinks several glasses of brandy and some beer daily.	Commencing atrophy of discs.	Gradual failure. Is rather nervous; says he has noticed no ill-effects from smoking except occasional "heart-burn."	

10. 1869, July 5. C. p. 312.	Henry Cartwright, steward on board ship.	35. 2 months.	Has smoked half an ounce daily for twenty years. Has drunk a good deal.	Vision 19 J., and no letters in the distance. Discs decidedly paler at outer than inner halves.	Gradual failure; "is always in a fog." Has had no special inconvenience from smoking.	
11. 1870, Feb. 3. C. p. 366.	Samuel Barnard, stableman. Square, and rather sallow.	61. 12 months.	Has smoked "moderately" forty years; generally *shag* tobacco. Has been steady, and has drunk chiefly beer.	Vision, right eye cannot quite tell letters of 20 J. Left eye sees 14 J. Discs, right uniformly white; left paler at its outer than at its inner half.	Gradual failure; the right eye began to fail before the left, and is in a more advanced state of atrophy.	Is rather deaf; has been so for a year. 1870, *March* 15. Just the same. *Dec.* 15. Sees 10 J. Has not smoked at all.
12. 1870, Jan. 10. C. p. 354.	R. J. Littleboy, sailor.	55. 2 months.	Has smoked half an ounce daily for thirty years, chiefly *shag and cavendish* tobacco. Has been a great drinker, half a pint of spirits, and two or three pints of beer daily, or more.	Vision 20–70. Discs pale at the outer halves.	None mentioned.	Has never been seasick. No difficulty in learning to smoke. 1870, *Mar.* 3. Vision 20–50 and 6 J. (with + 20). *Dec.* 15. His wife reports that he can see to read the newspaper.
13. 1870, Feb. 21. C. p. 379.	George Jones.	30. 18 months.	Has smoked nearly half an ounce daily for six years of *shag* tobacco. Has drunk a good deal of gin and rum, but not generally when he smoked.	Vision, 20–200 barely, and just sees 10 J. Discs, remarkably pale at the outer halves; vessels not much diminished.	Gradual failure. Had no difficulty in learning to smoke; is not sick when he goes on the sea. Memory has failed of late.	

Number. Date. Reference.	Name. Occupation. State of Health.	Age. Duration of Amaurosis	Use of Tobacco and Alcohol.	State of Eyes.	Other Symptoms.	Progress and Remarks.
14. 1870, March 24. F. p. 4.	Thomas Allen.	53. 6 months.	Has used half an ounce daily, partly smoking, partly chewing, for more than thirty years, *shag* tobacco. Drinks porter, pretty freely at times; does not drink while smoking.	Vision, 20–200 and 16 J.	Gradual failure; it began as a fog.	1870, *April* 11. Vision 20–70 and 16 J.
15. 1870, April 11. F. p. 25.	Joseph Bryant, engineer. Strong, healthy man.	56. 4 months.	Has smoked for forty years; half an ounce daily for last five years, *shag* tobacco. Formerly drunk five or six pints of beer daily; for several years past has drunk only half a pint, and occasionally a little rum.	Vision, right eye 20–200, and 20 J, increased to 10 J. with glasses. Left eye lost many years ago after an injury by a chip of iron. Disc in right, blue white.	Gradual failure; no pain.	Sight was excellent in right eye before the recent attack. 1870, *Oct.* 31. Says the sight is worse; sees 5–200, and barely 10 J. with glasses. He wants to get compensation for an accident which has happened since he came before, and has, he says, made his sight worse.

16. 1870, May 5. F. p. 31.	Henry Lock, chair-maker. Pale, but in good health.	Not noted. 6 months.	Has smoked half an ounce daily for sixteen years *shag* tobacco. Has usually taken two pints of beer daily; has never been intemperate.	Vision 20–100, and 10 J. Discs seem slightly swollen and indistinct; the outer half of each is whiter than the inner half; this difference is less marked in the right.	Gradual failure. Is rather deaf, especially on right side; has been so for several years.	1870, *August* 25. Vision 2 J.; has improved notably. Has not quite left off smoking. Has taken nothing but iron, and used a little astringent lotion for the eyes.
17. 1870, May 16. F. p. 34.	John Thornton. Spare, healthy, and vigorous; face rather florid.	60. 7 weeks.	Has smoked (sometimes chewed) half an ounce daily for twenty years *shag* tobacco. Drinks stout often when smoking, but considers himself temperate.	Vision 20–100, and 14 to 16 J. Discs pale, especially at outer halves; arteries not diminished.	Says the sight failed rather suddenly, and did not get much worse afterwards. History of occasional dimness for several years, probably due to weakness of ciliary muscle. Has been to sea a good deal, and is always sick for the first two or three days.	
18. 1870, May 19. F. p. 39.	Frederick Graham, at present in a workhouse.	48. 5 weeks.	Has smoked half an ounce daily for twenty years of *shag* tobacco.	Vision 20 J.; nothing in the distance. Discs decidedly whiter at the outer than at the inner part.	He asserts that the dimness came on suddenly; as he was walking "a lot of gnats seemed to come before the sight;" he believes the sight has not got much worse since that time.	1870, *June* 23. Vision 16 J.; still nothing in the distance. *Nov.* 24. The same.

Number. Date. Reference.	Name. Occupation. State of Health.	Age. Duration of Amaurosis	Use of Tobacco and Alcohol.	State of Eyes.	Other Symptoms.	Progress and Remarks.
19. 1870, May 26. F. p. 39.	William Doncaster.	54. 12 months.	Has smoked about half an ounce daily for thirty-five years *shag* tobacco.	Vision 20–100 and 16 J.; not improved by glasses. The ophthalmoscopic changes are not far advanced. The outer half of each disc is paler than the inner half; this is more marked in the right.	Gradual failure. He was very sick when he learnt to smoke; he has been to sea, and says that he has not been sea-sick.	1870, *Sept.* 1. Vision 10 J. *Nov.* 7. Reads words of 4 J. without any glass. Still smokes a very little (half an ounce a month).
20. 1870, Oct 3. F. p. 71.	Fredk. C. Henderson, married, a clerk. In good health.	30. 2 years.	Has smoked an ounce a week. Has never been intemperate.	Vision, with the left eye (the worse) he cannot see one's hand. Pupils of normal size, but act very sluggishly, Discs are grey-white, especially at their outer halves.	Gradual failure; sight has been as bad as now for ten months. If he smoked more than his usual quantity it made him ill.	He left off smoking a year before he applied for advice. *Note* his inability to smoke more than a small quantity of tobacco.
21. 1870, July 7. F. p. 67.	William Heatley.	50. 15—18 months.	Has smoked half an ounce daily for thirty years *cavendish* tobacco.	Vision 20–200, and 20 J. Discs somewhat pale, especially at the outer parts; left rather more so than right. There are slight iritic adhesions.	Gradual failure; no pain.	Had excellent sight formerly.

22. 1870, Oct. 17. F. p. 86.	John Liddle, joiner.	35. 7 months.	Has smoked two ounces weekly for sixteen years *shag and pig-tail* tobacco. Has drunk alcoholic liquors perhaps somewhat largely.	Vision, cannot count fingers at 3 feet. Discs atrophied; the left is more advanced than the right.	He asserts that his sight failed rather quickly, in two or three weeks, but without pain. He never could smoke very easily, and was always faint and sick if he smoked more than usual.	Lives a long way off and cannot come again.
23. 1870, Sept. 5. F. p. 89.	William Owen.	63. 6 weeks.	Has smoked for more than twenty years *shag* tobacco; latterly has used a quarter to half an ounce daily.	Vision 20–30, and 8 J.; not improved by glasses for distance. Discs decidedly paler at the outer than the inner halves; left worse.	Gradual failure; complains of a fog.	For the last year has smoked more than he used to do; has had family troubles.
24. 1870, Nov. 14. F. p. 102.	Thos. Comery, bricklayer. In excellent health; dark hair and skin.	28. 3 months.	Has smoked more or less for twenty-three years, largely for a year and a half, now quarter of an ounce daily, *shag* tobacco. Drinks freely, and often gets drunk; drinks beer.	Vision 20 J.; cannot see 200 at 10 feet. Is hypermetropic. Discs very white, margins clear; arteries little, if at all, diminished.	He gets rather giddy at times, but is not otherwise ill.	Believes present failure of sight began suddenly after exposure to the sun on a very hot day. Sight has continued to get worse ever since. Had great difficulty in learning to smoke when a boy.

Number. Date. Reference.	Name. Occupation. State of Health.	Age. Duration of Amaurosis	Use of Tobacco and Alcohol.	State of Eyes.	Other Symptoms.	Progress and Remarks.
25. 1870, Nov. 24. F. p. 105.	Charles Hopkins, engine-driver. Married; four children, all healthy. He is in good health, pale, dark hair.	35. 6 months.	Has smoked half an ounce daily for eighteen years *shag* tobacco. Drinks a very moderate amount of beer with his meals.	Vision 20–50, and 8 J. Pupils act fairly well, and are of normal size. Discs decidedly pale at the outer halves; vessels not diminished.	Very gradual failure, has been nervous lately, but has not smoked more than usual. Had no special difficulty in learning to smoke; has never been to sea.	Had very sharp sight formerly.
26. 1870, Nov. 28. F. p. 109.	Israel Meyers, packing case maker. Fairly healthy-looking; head bald. Has had "rheumatism" in hand and foot; was once laid up with it.	39. 2 years.	Has smoked for eighteen years; until a year ago he used half an ounce daily, since that time only half as much, *shag* tobacco. Has drunk beer and spirits moderatety.	Vision, cannot count fingers; the left is a little worse than the right. Pupils of medium size, motionless. Discs very white, sclerotic sheath plainly seen; vessels not diminished.	Gradual failure; has had no pain or inflammation in the eyes. Of late, whenever he has smoked more than usual, it has made him nervous and shaky. Had considerable difficulty in learning to smoke.	

27. 1870, Nov. 28. F. p. 112.	William Packer.	40. 2½ years.	Has smoked for twenty-four years; never smoked largely, from half to three quarters of an ounce weekly, *shag* tobacco. Has drunk beer moderately.	Vision, can just tell light from darkness. Discs very white.	His sight began to fail in August, 1868; he believes that it began to fail suddenly on a hot day, and that it afterwards became worse. Learnt to smoke with difficulty, and has always been easily made sick and nervous by over-smoking. In boyhood he went to sea on board a collier, and was not troubled with sickness.	Has been under Mr. Couper's care for a long time; he continued to get worse after he left off smoking, and has been as bad as he is now for a year and a half.
28. 1870, June. F. p. 117.	J. Lack, married, farm-laborer.	42. 18 months.	Has smoked for twenty-five years; sometimes as much as half an ounce daily, *shag* tobacco. Of late years has drunk a good deal of beer (two or three pints daily).	Vision about 16 J.; nothing in the distance. Myopic refraction. Discs in condition of white atrophy, especially at outer halves. There are also crescents, with ill-defined margins, probably advancing. Not improved for distance by concave glasses.	Sight has failed gradually. He says he could see well *in the distance*, as well as for reading, until about a year and a half ago. His sight (he says) varies a good deal, and is best in the dusk. Smoking has never disagreed with him.	It seems probable that the myopia and the atrophy of discs have to some extent advanced together. He has never used his eyes much at close work. 1870, *Dec.* 1. Sight no worse, perhaps a little better; 16 J. Has not smoked at all. Is better in health.

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26. 1870, Nov. 28. F. p. 109.	Israel Meyers, packing case maker. Fairly healthy-looking; head bald. Has had "rheumatism" in hand and foot; was once laid up with it.	39. 2 years.	Has smoked for eighteen years; until a year ago he used half an ounce daily, since that time only half as much, *shag* tobacco. Has drunk beer and spirits moderatety.	Vision, cannot count fingers; the left is a little worse than the right. Pupils of medium size, motionless. Discs very white, sclerotic sheath plainly seen; vessels not diminished.	Gradual failure; has had no pain or inflammation in the eyes. Of late, whenever he has smoked more than usual, it has made him nervous and shaky. Had considerable difficulty in learning to smoke.	

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29. 1870, Dec. 5. F. p. 125.	Wasdall Meadway, single. Has been farming, etc., at Cape and in Australia. In splendid health; light hair. Was once ill, more or less, two years ago with "liver complaint."	36. 6 months.	Began to smoke twenty-five years ago; has smoked quite regularly for eighteen years half an ounce daily; smoked a sort of roll tobacco ("Boor tobacco") at the Cape. Drinks a fair quantity of beer, and some gin.	Vision 20–200, and 12 J.; not improved by glasses. Discs decidedly paler at outer third; vessels of good size.	Gradual failure. Learnt to smoke easily; it never disagrees with him, or makes him nervous. Is a good sailor.	

SUMMARY.—The five worst cases are, 20, 22, 24, 26, 27. In each the patient had been a *smoker for a long time* (average 19½ years, excluding No. 20, in which this item is not given). In several of them (excepting 24 and 26) the *quantity of tobacco smoked had been comparatively small.* The quantity of tobacco used by the two patients whose sight was worst of all (Nos. 20 and 27) was less than that used by any other patient. The *duration of the amblyopia* in these severe cases was (with the exception of No. 24) considerable, the average (excluding No. 24) being 21¼ months. There were *other signs of intolerance of tobacco* in the same five cases. Only one other case (No. 6) is noted as having suffered any other unpleasant symptoms, and these were apparently slight. In all the worst cases the patients had used alcoholic drinks, and two of them had been great drinkers.

In the *worst case of all* (No. 27) the patient had smoked very little compared with most of the others; he had had difficulty in learning to smoke, and smoking had often in after-life made him sick and nervous. He had smoked for 24 years. According to his statement, his sight continued to get worse after he left off smoking, but as he did not come under my care until his amaurosis was almost absolute, I cannot verify his assertions on this point.

Editorial.

Humanized and Buculine Vaccine Virus.

The general diffusion of small-pox at present, and its occurrence in epidemic form at several points far apart, give unusual prominence to the subject of vaccination. Notwithstanding the great amount of research devoted to it, and the number and high character of the investigators, there yet remain a number of unsolved problems, some of them of extreme importance. Are small-pox, horse-pox, and cow-pox, only modifications of one and the same disease, or are they distinct though similar and allied diseases? Has the vaccine lymph now in ordinary use degenerated? And, if so, is it possible to regenerate it so that it shall re-

possess its former degree of protective power against variola? Has non-humanized or buculine lymph any superiority over the humanized lymph now generally used? These are some of the more important questions that present themselves, but that cannot yet be said to have received quite definite answers; and, without presenting any new facts or observations, we yet desire to call attention to the unsettled condition of our knowledge on these points, because most of the works in our language would seem to consider them as pretty well determined, whereas researches in European countries, more particularly in France, have thrown very grave doubt upon the correctness of the conclusions we have been taught to accept as proven.

Upon the question as to the actual identity of cow-pox and horse-pox with small-pox in man, Sir Thomas Watson, in the last American edition of his lectures, published this year, says, vol. ii., p. 893:

"This plausible and attractive theory has become demonstrated fact. Researches subsequent to Jenner's have made it 'matter of almost familiar experiment' (I state the whole proposition in Mr. Simon's condensed but clear language) 'that the infection of small-pox may, by inoculation, be communicated from man to the cow; that its result is an eruption of vesicles presenting the physical characters of cow-pox; that the lymph from these vesicles, if implanted in the skin of the human subject, produces the ordinary local phenomena of vaccination; that the person so vaccinated diffuses no atmospheric infection; that the lymph generated by him may be transferred; with reproductive powers, to other unprotected persons; and that, on the conclusion of this artificial disorder, neither renewed vaccination, nor inoculation with small-pox, nor the closest contact and cohabitation with small-pox patients, will occasion him to betray any remnant of susceptibility to infection."

On the other hand, Professor A. Trousseau, of Paris, says, vol. ii., pp. 118, 119, of his Lectures on Clinical Medicine, translated by John Rose Cormack, M. D., 1869, speaking of the report made by M. Chauveau in the name of the Commission appointed by the Society of Medical Sciences at Lyons to investigate and experiment upon this point:

"The learned reporter has first shown that small-pox can be perfectly well communicated to the bovine species by in-

oculation, to which species it stands in the same relation as vaccinia to man; that is to say, that when an ox has been inoculated with small-pox it is thereby made proof against cow-pox, just as a vaccinated man is proof against small-pox. But a much more important practical point is, that '*small-pox in its passage through the system of a cow is not transformed into vaccinia: it remains small-pox, and returns to the original state of small-pox when re-introduced into the human species.*' The experiments of the Lyons Commission upon solipeds gave results similar to those obtained from bovine ruminants. There is only a difference in form. Thus in the cow, the eruption of small-pox consists of pimples so minute as to escape notice unless one is on the outlook for them. Cow-pox, on the other hand, engenders an eruption of the vaccinal type, with its large and very characteristic pocks. In the horse, also, the inoculation of small-pox engenders a papular eruption in which there is neither secretion nor crust; and although this eruption is much more formidable than that produced in the cow, it need never be confounded with horse-pox eruption, so remarkable for the abundance of the secretion and the thickness of the crusts. Hence it follows, that small-pox and cow-pox, or horse-pox, are different diseases, and that when we vaccinate after the method of Thielé and Ceely we in reality inoculate small-pox."

The experiments of the Lyons Commission appear to demonstrate conclusively the truth of their conclusion, a child inoculated with matter taken from pustules in a cow which resulted from inoculation of the cow with small-pox virus, having true small-pox therefrom, the same as from regular variolation; and matter from the pustules on this child producing severe, even confluent, small-pox in some of those in whom it was inoculated. If Professor Trousseau is correct, the recent attempts made to obtain a fresh stock of lymph for vaccination by inoculating heifers and calves with matter from small-pox patients, can hardly fail to eventuate disastrously to those on whom such lymph is employed. At any rate, for the sake of certainty, it would probably be best to employ for vaccination only humanized lymph, or that obtained from the cow suffering with natural spontaneous cow-pox. Professor Trousseau, from his own series of experiments, concluded that no matter what the source of the virus employed, it always in the course of several trans-

missions tends to return to its original typical character, if only healthy individuals are used for its transmission. Thus successive inoculations of children with matter from varioloid, or modified small-pox pustules, finally produced typical confluent variola. In the same way he proposes to regenerate vaccine lymph, which in these days seems to have lost some portion of the virtue it possessed in, and immediately succeeding the time of Jenner, by using only lymph which has passed through, or rather has been elaborated by, a series of perfectly healthy individuals; claiming that in this way we shall probably obtain a virus of the highest protective power as well as the greatest activity, and having the well-known advantage over the non-humanized, the buculine vaccine lymph, that vaccination with it takes more rapidly than with the latter, which in so large a proportion of cases fails. There seems to be n doubt that a very great deal of the vaccine matter of to-day is less efficacious as a protective from variola than that employed by Jenner and his contemporaries. Yet Sir Thomas Watson says, p. 885, op. cit.:

"For one year I had a seat, as the Senior Censor of the College of Physicians, at the National Vaccine Board, and I then had opportunities of satisfying myself that lymph, which had been transmitted without interruption from person to person ever since the time of Jenner, continued to generate what seemed a very perfect cow-pox vesicle. And it is the expressed opinion of the permanent members of that Board, 'that the vaccine lymph does not lose any of its prophylactic power by a continued transit through successive subjects.'"

If Trousseau's theory be correct, only that vaccine lymph which, from the date of its first employment in man, has passed through a series of healthy individuals, would now possess its original activity and prophylactic power; that which has passed through unhealthy individuals, thereby losing more or less of its virtue: and thus the opinion of the majority of physicians as to the gradual weakening of the vaccine virus, and the observation of Sir Thomas Watson above, would be harmonized. Only that inasmuch as nearly all of the vaccine virus which has been transmitted through the human system from the time of Jenner to the present

day, has, in all probability, once or oftener passed through an unhealthy individual, there would be but very little of it that retains its ancient virtue unimpaired. Hence the apparent necessity of again reverting to the cow for strong virus, and the care requisite, in using humanized lymph, that it has passed through none but healthy systems. After a few removes from the cow it is generally impossible to trace back the history of any particular portion of lymph or scab. For this reason reliable lymph, non-humanized, or having passed through not more than one human system, which can now always be obtained, must have the preference over any of the old stock of virus descended from the days of Jenner, over seventy years ago.

The examination of different authorities upon this subject leads us in the main to accept the reasoning and conclusions of Professor Trousseau, whose vast opportunities for observation and experiment, critical acumen, and long experience qualify him beyond most other living authors to form a correct judgment: although in some important points he differs from the leading American and English authorities. *

The Canada Medical and Surgical Journal, Vol. 1, No. 1, is received. We welcome this addition to our list of exchanges, and desire for it the success sure to follow under the control of its able editor Dr. Geo. B. Fenwick, who for eight years was the senior editor of the *Canada Medical Journal.* Although Dr. Fenwick is Professor in the "McGill University," he announces the *Journal* to be entirely independent and calls upon the profession of Canada to assist him. The *Journal* contains forty-eight pages of sound and readable matter.

Miscellaneous.

Proceedings of the Alameda County Medical Association.

OAKLAND, July 1, 1872.

Present—Dr. Van Wyck, President; Drs. Babcock, Carr, Cushing, Gibbons, Hanson, Holmes, Kittredge, Jno. Le Conte, Jos. LeConte, Pinkerton, Sherman.

The minutes of the last meeting were read and approved. Dr. Edward Parson, of Oakland, was proposed for membership by Drs. Holmes and John LeConte; referred to the Board of Censors.

Dr. Jno. LeConte, chairman of the standing committee, read the following instructions for the sub-committee on Botany. It is expected to provide: 1st. A catalogue of plants found in the county, arranged in the natural orders. 2d. A list of those which are officinal. 3d. A list of those holding a secondary place in the pharmacopœia. 4th. A list of those which have been officinal, but which are now dropped. 5th. Each plant to be accompanied with a record of its locality, soil and the altitude of its habitat. 6th. A determination of the proximate principles of each plant. 7th. Its action on the human system in health. 8th. The same, in disease. 9th. Whether its action is local or general. 10th. The disease for which it has been used and its formulæ. 11th. The proper time for gathering it for medicinal purposes. 12th. A comparison of the active principles of a plant growing in California, with those of the same plant growing in the Eastern States. The report was accepted, adopted and ordered placed on file.

Dr. Hanson read a paper on the treatment of diseases of the air passages, by inhalation. He gave a history of the practice, different inventions, remedies used, instructions for their use, and cited cases to prove their efficacy.

Dr. Gibbons presented a blighted ovum of about three months and gave the history of the case. He also read the

history of a patient who died under peculiar circumstances, and Dr. Sherman presented the brain and a portion of the lungs, removed at the *autopsy*. The examination showed that the patient suffered from acute meningitis and diffused tuberculosis. After a quite lengthy discussion on the subjects presented, the Association adjourned to 5th August, at 8 p. m.

The Sacramento Society for Medical Improvement, on the 20th of last month, gave a Banquet of Welcome to Dr. Logan, who had just returned from the National Medical Convention, at Philadelphia, having been the recipient of the honor of being appointed the President to preside at the next meeting of that body. From Dr. Logan's reply to the address of welcome we copy the following remarks, as being of general interest; he said:

"Fellow Members of the Sacramento Society for Medical Improvement: I am so deeply touched by this, the flattering reception you have accorded to me, and the kind remarks expressed through your presiding officer, that I am utterly unable to make such a flattering response as the dictates of my heart and head would otherwise suggest. It is true, as has just been stated, that I have been the recipient of the highest honors within the gift of the profession in the United States. To be elected, in the very cradle of American medicine, to occupy the same position rendered illustrious by the patriarchs who gave it renown, is an honor which cannot be estimated too highly. Especially will you agree with me that I cannot exult too greatly over it when you are reminded that I represent, in my own person, four generations of the same name and profession, direct from Edinburgh to Philadelphia, where my father before me was graduated in 1802. I have only one cause for regret during my attendance at the Convention, and that is to be found in the sparseness of representatives from California. Let me trust and hope that this defection in our ranks will not occur again, and that in May next I shall have the proud pleasure of welcoming a strong delegation from Sacramento in St. Louis. Believe me, gentlemen, that we shall never regret the slight sacrifice of time and travel it may cause to participate in a social and professional

reunion such as I have witnessed, of kindred spirits and great minds. Its memories will afford perennial delight, while its action is directed, as it has ever been, to effectuate its original and grand finality—the progress of medical science." *Sacramento Union, June 21st*, 1872.

"*A Mystery Still.*"

Under the above title, the writer of this article in a Buffalo, N. Y. daily paper, in March, 1869, published the following history, in hopes of drawing out correspondence which would lead to a more perfect knowledge of the character described. It succeeded to a slight degree and, thinking that the profession would be entertained by the narrative, it is here reproduced, although it is of no importance in a professional point of view.

The article was originally written for an English journal, by some one who knew the Doctor in Cape Town, and was evidently well acquainted with the facts whereof he spoke, and was copied into a New England paper. On arrival home from a foreign cruise, it was read, and, as the party referred to had been freely discussed by the officers of the ship, who had met the persons familiar with the hero or heroine of the story, the narrative possessed particular interest. The introduction, written in 1869, is here inserted, giving all that was known to the writer of the wonderful career of the *he*, *she* or *it*, who created quite a commotion in British official circles in 1865. [ED.]

"This Dr. James is the same who, under the name of Mr. Barry, Surgeon, was quartered at the Cape of Good Hope during the imprisonment of Count de Las Casas, in 1817. In the memoirs of the Count, vol. IV., p. 253, he states: 'On the following day, I received a visit from one of the captains of our station at St. Helena. Knowing the state of my son's health, he brought a medical gentleman along with him. * * * I mistook the captain's medical friend for his son or nephew. The grave doctor, who was presented to me, was a boy of eighteen, with the form, the manners, and the voice of a woman. But Mr. Barry (such

was his name) was described to be an absolute phenomenon. I was informed that he had obtained his diploma at the age of thirteen, after the most rigid examination, that he had performed extraordinary cures at the Cape, and had saved the life of one of the Governor's daughters after she had been given up, which rendered him a sort of favorite in the family.' Again, on page 263, he writes: 'The only stranger I saw was Dr. Barry, who frequently visited me. I found his company very agreeable.' He also states that the doctor introduced his son to two ladies, 'the daughters of Lord Charles Somerset, who had this morning brought the doctor as far as the court-yard fronting our prison,' etc. This Lord Charles Somerset was the Governor, and is the 'patron' referred to in the following sketch:

"The writer of this notice, when in Cape Town, heard the history of Mr. Barry, or Dr. James, from the lips of a gentleman who had known the mysterious personage when he was stationed there. This gentleman gave his history in substance as given in the sketch, adding, however, some anecdotes and traits of character, which only increased the wonder already created by the story as given below. How it was possible for an officer, living in garrison, messing with others, engaged for fifty years in constant intercourse with all classes of society, to preserve his or her *incog.*, is strange; and to add to that the wonderful influence always at hand for the accomplishment of whatever was dictated by impulse or pre-arranged plan, with a total disregard of authority, rank or taste, is still more incredible. Mr Barry, or Dr. James, was undoubtedly the illegitimate child or victim of some one high in rank as well as potent in authority.

"A letter from a distinguished naval officer to the writer, says: 'At two different places in Cape Town, I saw photographs of Dr. Barry. His face was thin and smooth; cheeks hollow; lower portion of the face narrow; forehead full, broad and prominent; eyes large. He wore a cravat covering the entire neck, and had the vest and coat buttoned to the throat. Among many other curious anecdotes, I recall the following: A person living between Winbey and Cape Town, and who considered himself of considerable importance, having a violent attack of toothache, one night, sent for the doctor. He, detesting the applicant, gave the messenger no satisfaction, but in the morning directed the farrier of the regiment to go to the house of Mr. ——, and be prepared to pull the tooth of a jackass! Tell him that Dr. Barry sent you! The whole story of the doctor is wonderful and mysterious.'

"A letter from an officer on the staff of Gov. Andrew, of

Mass., says: 'One day, in '63 or '64, I forget which, Gov. A. sent for me to pay his respects to Sir James Barry, Surgeon in Her Majesty's service, etc., and to tender to him the hospitalities of the State. I went, and found a little, wrinkled old man, in a carriage with a big black man and a small dog. I took him around the city, showed him the sights, including the Common, and accepted an invitation to his rooms at the 'Quincy House,' where he opened some champagne. The hotel was a *temperance house*, and the doctor said that he had not done so much swearing in a long time as when at table that morning he asked for some liquor, and was told that the article was not allowed in the house; he immediately sent out John and bought a basket. The next day I took him to the Hospitals, and finally put him on the cars for New York, *en route* for the Army of the Potomac. He bought a ticket for his dog, and had him in the seat by his side. That is all I know of him.'" * * ("There was a mistake about the title, for Dr. Barry never was knighted.) When the individual died, no obituary appeared in the United Service Journal; his name was dropped, nothing more." Here follows the story:

Nearly half a century ago, a young fellow, with a smartish air, though of a small, ill-proportioned figure, landed at the Cape of Good Hope, bringing letters of introduction to the Governor of the colony from a well-known eccentric Scotch nobleman. This fair-faced, slender youth held the humble rank of an assistant-surgeon in the army.

He soon showed that he possessed the power of self-appreciation to such a degree as required a little taking down. But this was found to be no easy task. He had the faculty called in French *l'audace*, often a good substitute for ability, but when the two go hand in hand, they carry all before them, in one shape or other; and as the young surgeon was as clever as he was impudent, he made a position for himself, and what is more, he kept it.

Doctor James—we give part of his name as it stood in the army list in 1865—was a physician by Edinburgh diploma. As we shall show by and by, he never held any regimental rank, passing, contrary to all precedent, to his full surgeoncy on the staff.

By dates from unquestionable record, he seem to have received his diploma at the early age of fifteen. Whether these dates correspond with his certificate of baptism, it is impossible to say, as under all circumstances, it may be doubtful whether such a document ever existed.

Whatever might have been the status of military medical men fifty years since, James liked his calling, and, socially

speaking, was a gentleman every inch of him; though this is not literally saying very much for him, seeing he was but a little man. He had a fair allowance from some source or other; but he never spoke of any relatives or friends out of the military profession. His habits were too expensive to be met by his mere pay and allowances. He kept a horse and a private servant, and as a strict vegetarian, would touch none but the most delicate fruits of the earth. Potatoes and apples were to him "filthy roots;" the odor of cabbage made him sick; but he liked peas and craved for asparagus, sea-kale, peaches, grapes, melons, figs, custard-apples, and, above all, mangoes. Coffee was the only stimulant he could use or bear, except when ill, and then he would sip diluted champagne or brandy, medicinally.

Some called him a toady; but his letters of introduction placed him at once in the best society of the colony. Neither had he health for general visiting. With those among whom he lived, he made friends and kept them. His testiness was harmless, his abilities were unquestionable; and it having been intimated to the Governor that the young medico's duties were to be made as light as the rules of the service would permit, he was installed as honorary physician to his Excellency's family, and soon obtained such a reputation, both as physician and surgeon, that private practice came to him without his seeking it. His queer ways and irritable temper rather increased than diminished his prestige, and he held his own through good report and evil report.

When first called in to a patient, he would have the room cleared of everything previously prescribed, and would almost invariably order, as preface to his course of treatment, a bath of Cape wine! Happen what might, he claimed the whole credit of a cure, or blamed others for failure. He was, to be sure sent for at times as a last resource. If the patient recovered, Dr. James had all the merit; if death ensued, "Dr. James had unfortunately been summoned when the case was hopeless."

His Excellency spoiled him. He became a kind of fame imp, encouraged as amusing and harmless enough: but, like such imps, he took advantage one day of his position, and was impertinent. He had the *entree* of the Governor's private cabinet. One morning, sauntering in, he had the assurance to make some querulous remarks on an official document lying on a table. Finally, he worked himself into such an offensive pet that his Excellency resolved to give him a lesson, so, snatching the little fellow at the collar of his uniform, he slung him over the window-sill—a few feet

above the grassy garden—and shook him. James screeched and cried peccavi. He was forgiven and never offended there in the same way again. Still, every one was persuaded that such unwarrantable humors as he exhibited were only tolerated by reason of certain influences that remain a mystery at this day. His next adventure might have ended his career. The story from the Government House got bruited abroad, and much fun was raised at Dr. James's expense. Some laughed about it in such a way that James could not but be aware of the fact. He had been looking out for a chance of checking the sauciness of some of the young fellows of the garrison, and here was the chance at last. One morning a tall cornet, whose contemptuous manner had much irritated him, was sauntering along under the trees of a charming walk, in one of the most public parts of Cape Town—where, to this day, the public are wont to sit upon the stoops, men smoking, women knitting, and grave little Dutch children toddling up and down—when James strutted up to the young dragoon—a member of the Governor's staff. James stopped the way with a defiant air. Some ill-conditioned person had made the most of the cornet's disparaging jests. James was glad of this opportunity of asserting himself. High words ensued, the doctor's shrill voice piercing the air, and thus drawing attention (as he intended it (should) to the enconnter, which ended in a challenge. Next morning a quiet little duel took place. It ended well. Hands were shaken, and the cornet and the doctor became good friends for life. If the affair ever came to the ears of the Governor, he thought it best to ignore it, according to the fashion of the day.

Dr. James afforded a good illustration of mind over matter. Tetchy as he was, he never excited any professional jealousy, albeit, in defiance of all precedent, he was promoted on the staff as full surgeon without doing a day's regimental duty. Frail in body, unique in appearance, and eccentric in manner, he insured respect by his capacity; and, as he could be courteous when he pleased, his oddities were excused by his colleagues. He must have realized at this period considerable sums by his private practice, but he never changed his mode of living. He kept a black servant, a serviceable pony, and a small dog named Psyche. Most of Psyche's successors bore her name. The queer quartette took their walks abroad in company, and were a well-known group at Cape Town.

On Dr. James's return to England, he was offered an appointment to another colonial station. Here, owing to the climate, or possibly to nonappreciation, he grew discon-

tented, and without making any official application for leave of absence, or plea of sickness or "urgent private affairs," took his departure for England.

He would chuckle as he recited the story of his unlooked for reappearance before the Director General of the medical department in London. "Sir," said the doctor, "I don't understand your reporting yourself in this fashion. You admit you have returned without leave of absence. May I ask you how this is?"

"Well," said James, coolly running his long white fingers through his crisp sandy curls, "I have come home to have my hair cut."

He more than once defied the rules of the service with impunity, and invariably boasted that he could have his choice of quarters. And he had. He was counted a lucky fellow; but who he was or what he was, never ceased to be a question of doubt among his brethren less fortunate than he.

It would scarcely be supposed that he would submit to the banishment of St. Helena, but he thought "it might suit him very well," until he made it too hot to hold him. The climate pleased him. The fruits and delicate vegetables were strong considerations with him. His health was more settled than in former days, his reputation was high, and he had brought with him his usual letters of introduction. Despite his shuffling gait, he might have been no more than thirty, although he had been an M. D. nearly twenty-four years! His smooth face contributed essentially to his juvenile appearance.

He was now principal medical officer. He installed himself in a pretty cottage at the head of Jamestown, and revelled in the tropical fruits, as many who read this account will remember. A certain mango tree was his favorite bower. He paid well for all he had, and those who had the best opportunities of knowing him asserted that, selfish, odd, and cranky as he was, he had kindness for the poor, and was charitable without ostentation. He would go about, bestriding his pony in a strange fashion, with an umbrella over his head. His saddle was a curiosity. It was so comfortably padded and so safely shaped that once wedged into it, it was a marvel how he got out of it. In uniform he was a caricature. His boot-heels were two inches above the ground, and within the boots were soles three inches thick. Add to these boots very long spurs, crown the sandy curls with a cocked hat, and complete all with a sword big enough for a dragoon, and you have the doctor complete. The pony was enveloped in a net from ears to heels, and swung the

tassels about impatient of the gear. The black man attended at the beast's head, and Psyche tripped after them, the doctor's treble waking up the hot silence of the one narrow street shut in by barren rocks, and Psyche's bark making discord at intervals.

He established himself in the old fashion at Government House, where he was suffered to talk of his aristocratic acquaintance, sometimes alluding to those of other days in a manner sufficiently puzzling. As at Cape Town, he became the family physician, or considered himself as such, and gave himself his usual airs, when called in to a private family. He effected some great cures and gained the confidence of his patients. His presence at the hospital was the signal for the juniors to be all on the alert. The soldiers liked him and trusted in his skill; but woe betide the laggard medico, who was not there to receive the P. M. O., or who had swerved one hair's breadth from his instructions.

All went on harmoniously enough for upwards of a year, when the doctor, in an evil moment, picked up a quarrel with an officer of the garrison. The affair led to a challenge, which the doctor declined in no dignified way, and it was followed by his open expulsion from the garrison mess as an honorary member. Finally the Governor called for a court of inquiry, which resulted in James being sent home under arrest.

The writer of this article witnessd his exit from Jamestown. On one of those still, sultry mornings peculiar to the tropics, the measured step of the doctor's pony woke up the echoes of the valley. There came the P. M. O., looking faded and crestfallen. He was in plain clothes. He had shrunk away wonderfully. His blue jacket hung loosely about him, his white trowsers were a world too wide, the veil garnishing his broad straw hat covered his face, and he carried the inevitable umbrella over his head, so that it screened him from the general gaze. The street was deserted, but other eyes besides the writer's looked on the group through the Venitian blinds. No sentry presented arms at the gates, and the familiar quartette proceeded unnoticed along the lines to the ship's boat in waiting.

His influence had been at work for him before he landed. He was released from arrest, outrageous as his conduct had been, and again had his choice of quarters. He went to other stations in the tropics, to Greece, and the Mediterranean. He retained his taste for a government house society, and as he grew older, got less testy. He began to think of death and sepulture, and would have had a friend in the West Indies take an oath, that if he (James) died

there, he should be buried in the garments he wore at the time. The friend declined to swear, but James did not quarrel with him.

His last voyage was made as an amateur. Our winter drove him to the West Indies again, where he gave out "confidentially" that his reasons for leaving England were very sad; "a broken off engagement with a young and beautiful creature, and some trouble in money matters. He had lost documents, jewels and family records, on board a vessel, which had foundered at sea. He was unhappy, and he wanted solace." His former opponent in the duel was commander-in chief, and he and James were capital friends.

The summer of '64 brought him back to England, with Black John and a little dog, whose name was not Pysche. As the creature is probably living she shall be nameless. Doctor James must now have been quite seventy years old. His friends of former days held by him to the last; he was often ailing and the kind ladies of his Cape patron's family would take him out driving on the park, and would have him to dinner, with provisions of suitable fruits and cakes and coffee.

It was asserted that he aspired to the honor of being K. C. B., and his new uniform was ordered for the last levee of the season. No doubt his service entitled him to some distinction; and his influence still existed somewhere. One day he returned to his lodgings from a carriage ride, shivering and feverish. He went to bed, and dispatched Black John with his excuses from a dinner engagement for next day, Sunday.

On that Saturday morning, Black John went to his master's room, as usual, to lay out his body linen. Six towels were among the invariable items of his toilet, and though Black John never assisted at it personally, he was aware that his master wrapped these cloths about him; whether he did so for warmth, or to conceal any personal defects in his emaciated form was a mystery. No wonder the form was emaciated, for James accustomed himself for many years to periodical blood letting, either by leeches or lancet.

On Black John's return to his room he found his master worse, but nothing would elicit his permission to send for the medical friend who had been in attendance on him previously, for bronchitis. The faithful valet was alarmed, but he and the dog were the only watchers on the sufferer throughout the sultry July day. James lay dozing and powerless. It was after midnight when he rallied.

He sat up and spoke to John, wandering at times, and expressed concern at his long attendance, through so many

hours—he would have John take some light stimulant, which the faithful soul declined. Suddenly James fainted on his pillow. The valet used restoratives which revived him.

"John," gasped the invalid, "this must be death." But John did not think so.

"You are only weak, sir," he said, "let me give you some champagne and water, or the least drop of brandy in the wine glass of water." For James would take such stimulants in great extremity, and he was now in great extremity. He sipped a little from the glass, and said, more gently than usual, "Have some yourself, John, you need it, and you will not mind drinking after me." They were his last distinct words. John again declined refreshment, fearing he might fall asleep, but at his master's request, went to lie down in an adjoining room, thinking that "the general" as James chose to be designated by his valet, would get some rest.

Always considerate to his dependent, "the general" had been almost tender to John. He had spoken to him of his lonely life. "It was not always so, John," he said. "Once I had many friends. I have some still, and those are very good to me; but they are not the friends of early times; they will think of me, though, and if you want any help they will remember you for my sake. Now go and lie down. I think I shall sleep."

He never woke again. At daylight John entered the sick room. The curtains were closed, as he took the night light and approached the bed. "The general" had died without a struggle. His eyes were closed. The worn features were calm. There had been apparently no pain.

John drew the sheet over the face, and descended to the kitchen for a char-woman, who he knew would be there at that hour. He summoned her to assist at the last toilet of the dead "general." As she closed the door of the room he retreated to his own and laid himself down, tired out. He was closing his eyes, when the char-woman hurried in. "What do you mean," she said, "by calling me to lay out a general, and the corpse is a woman?"

John was utterly unprepared for this, although, like many others, he had fancied the "general" to be "different from other people some way or other." There had been floating suspicions respecting the sex of the doctor, but John declared he had never thoroughly shared in them. He had lived with the "general" three years, and, whatever doubt he might have had at first, he had latterly dismissed it from his mind.

According to John's account, the poor creature—the "old girl," as the ghastly adept in her calling terms her—was not treated in her last toilet with the courtesy she had never wanted during her military career. Before the poor corpse was laid in its grave, news reached the register-general of the discovery, and he at once called for a report from the proper authority. The report was "that after a post-mortem examination, it was found that Dr. James, of Her Majesty's service, was not only a woman, but had at a very early period of her life been a mother."

The deceased's effects were taken possession of by accredited agents. Notwithstanding the large sums of money she must have received as fees during her long course of private practice, she died penniless. The question arises, how had she spent the fortune she had made? As hush money, or in support of the child who, if still living, must be an elderly person?

James left no will. There was nothing to leave but the poor dog. A nobleman's valet came for the animal; settled accounts with Black John, even to giving him the return passage money to the island whence he came; and no one has since appeared claiming any relationship with the eccentric being, who was even more mysterious in death than in life.

Dr. James was buried at Kensal Green, in July, 1865, and he is registered under the name borne from the time of his entering the army as hospital assistant.

Book Reviews.

1. On the Physiology of Venereal Infection.
2. Remarks on Strictures of the Urethra of Extreme Caliber, with Cases, and a Description of New Instruments for their Treatment. By Fessenden N. Otis, M.D., Clinical Professor of Venereal Diseases at the College of Physicians and Surgeons, New York, etc., etc. (Reprinted from the *Medical Gazette.*) New York, F. Leypoldt. 1872.

These comely monographs are selected for notice from the large number of similar publications which have recently taken their origin in New York, partly because they

appear to us especially worthy of discussion, and partly that we may afford ourselves the opportunity of commending to the imitation of the profession here the fashion of which they are evidence. Printing one's own peculiar views, theories, or supposed discoveries, in this manner is by no means evidence that no one else can be got to print them. Such a practice rather speaks well both for the prosperity and the scientific devotion of the writers; and encourages largely that friendly emulation which begets the true spirit of progress. The brochures of Dr. Bumstead's distinguished successor, titled above, are in our judgment, models of the method which should govern those who thus invite criticism and judgment of their views.

Dr. Otis has divided his discussion of "Syphilitic Infection" into three distinct parts:

First. A clear and comprehensive statement of what he considers syphilis to be.

Second. A historical summary of the progress of professional opinion and theory respecting its origin and nature.

Third. A statement of his own theory as to the sequence of events during and following contagion.

"Syphilis," he begins, "as construed by the authorities of the present day, is a zymotic disease of the human organism, caused by the inoculation upon it of a virus hidden in certain specific venereal secretions, which after a period of incubation varying, in recorded cases, from thirty-six hours to seventy-two days, results in the appearance of the disease, at the point of inoculation, as an induration, or an indurated ulceration. This, which is known as the *infecting or syphilitic chancre*, and termed the *primary* stage of the disease, is accompanied or immediately followed by an enlargement and specific induration of the adjacent lymphatic glands; then the occurrence of a *second* incubation, or period of rest, of several weeks continuance, during which time no evidence of the disease is manifest, except that already referred to."

Doubtless many of our readers will take issue with Dr. Otis' statement that induration *universally* accompanies an infecting sore. There is good ground for the belief that the site of the sore exerts a decided influence in determining the degree of hardness which accompanies it; that the adi-

pose tissue underlying the skin of the pubis, for example, oftentimes determines a sore characteristically soft, which is nevertheless followed in due time by a most disappointing roseola.

After describing the *secondary* or *eruptive* stage, the Dr. recognizes a

"Tertiary or *gummy* period, characterized by the development of unsymmetrical papular and tubercular eruptions and of local ulcerations—the latter often involving the osseous structures; of tumors throughout the connective tissues of a peculiar gummy consistence, and termed by some authors Syphiloma, (under the impression that they are made up of materials *sui generis*, produced by the syphilitic influence;) * * * * and, finally, the *fourth* stage, involving lesions of the viscera, with a general vitiation and degradation of entire economy, under the title of *syphilitic cachexia*." p. 2.

While, of course, none of these facts are new to the profession, we are of the opinion that the distinctions here drawn are very generally unrecognized or disregarded in treatment, and often to the detriment of the patient. A man in the fourth stage, for example, now that his condition is recognized as a *cachexia*, will no longer, it is to be hoped, suffer further systematic degradation from a blind administration of remedies found useful in the earlier stages of the disease, so distinct as to represent entirely different maladies.

Rejecting with but scant mention the theory that syphilis originated in America, the writer proceeds to lay before us, very briefly, the proceeds of his investigations into many by-ways and blind alleys of its history. We note here, with especial thankfulness, the absence of our old friends and frightful examples, King David and Deuteronomy, Gonzales de Cordova, Columbus, Ferdinand de Ovieto and Fracastorius. Let us hope that these tiresome worthies are relegated forever to the regions of "Neil and Smith," and the stock-in-trade of "green-room" coaches. Instead, we learn with interest that the venereal poison, ascribed at first to unfavorable astronomical conjunctions, has been supposed also to be "a metastasis of bilious matter from the liver to the genital organs," (Nicholas Massa, 1540,) and a "venereal

miasm" (Paracelsus) of communicating which by a whisper to Henry VIII., Cardinal Wolsey was publicly accused! Doubtless the merry and much-wived monarch had small excuse for coming by it in any less remarkable way. Fernel appears to have been the first to discover that the disease resulted only from contact, and from his time, therefore, (1548) must date the history of intelligent and efficient investigation. Passing over many intermediate writers, we find that Bru, toward the end of the last century, supposed the virus to be *born* during coition, and that Broussais (1815) entirely denied its existence, which was finally established beyond further question by Ricord (1830), through his experiments on animals.

* * * * "but the mystery of its origin was still unexplained, and although various and ingenious theories were advanced from time to time, chiefly associating it with bestial (1) sexual commerce, the elucidation of the virulent principle was unaccomplished." p. 5.

Precisely this, the "elucidation of the virulent principle," is the professed object of this essay of our author, who skillfully leads up to the statement of his theory through the gradually advancing opinions of Astruc, John Hunter, Vidal Acton, (2) Cullerier, Virchow, Billroth, Bärensprung, Sigmund, Lancereaux (who notes that syphilitic blood is not inoculable upon another person unless the globules be present, (3) and many others, now living. Even our familiar fungus-finding friend Salisbury is not forgotten and, finally, the history of the subject is summed up as follows:

"1st. That in regard to *its origin*, the accumulated learning of centuries affords but the most unsatisfactory speculations.

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(1) Van Helmont, if our memory serves us, had much earlier than this (beginning of sixteenth century) professed to have discovered the *fores et origo malis*, in the intercourse of a man with a mare, suffering from farcy.

(2) Who recurs to Van Helmont's view: "My own opinion is, that syphilis in the human race originally arose from some poison introduced into the economy from animals or decomposing animal matter, and that, thus produced, it has been transmitted from one individual to another."—*Action on the Urinary and Generative Organs.* London, 1860.

(3) Sir E. Home had noted the same fact, seventy years before, as true of vaccination (from the virus of syphilitic subjects), practised upon British soldiers during the Peninsular war.—*Home on Ulcers, passim.*

"2d. That nothing is yet positively known of its nature. Accepted as a virus, with a power to contaminate the blood, it is known only by its effects.

"3d. That nothing is yet positively known of the mode by which the human system is infected by it." p. 13.

Having thus swept his ground clear of all the results of previous discussion, Dr. Otis then proceeds to erect his own theory of the true "Physiology of Syphilitic Infection," which we will endeavor to state as briefly as is consistent with justice to the propounder.

In the first place, the profession are about equally divided between two beliefs as to the channel whereby the syphilitic poison is absorbed, the one half upholding the venous capillaries, and the other the lymphatic system. Next it seems to have been settled by Willis and Von Recklingshausen (or a name to that effect), that the function of the lymphatic system is "the abstraction of a certain quantity of the watery element of the blood for the specific end of rendering the returning stream in the deeper-seated parts of the body of greater density than its outgoing stream," thus satisfying the conditions of osmose. Then Mr. Lionel Beale (*Disease Germs*, p. 11,) holds that the body substance is divisible into *germinal* (or living) *matter*, and *formed material.* The former being alone capable of growth and development, and the latter being the product of the former and, essentially, dead tissue. (1)

Now Mr. Beale maintains that zymotic disease germs are living matter, and as such not only capable of independent (amœboid) movement, but of independent growth and multiplication in presence of its proper pabulum. It follows as a necessary result of the foregoing statement concerning the lymphatic system, that there exists a constant osmotic current setting toward the lymphatics. To this having added the personal (so to speak) motion of the living germ,

(1) It may be remarked in passing that germinal matter may be distinguished from formed material by its property (due to an acid reaction) of precipitating carmine from an alkaline solution, which passes freely and invisibly through the matter of a cell (formed material) and stains only its nucleus (living matter).—*Beale's Microscope in Medicine, passim.*

we are supplied with an abundant explanation of its mode of progression. Now let us start our syphilitic germ upon an abraded surface of the glans.

"Its application to a wound or abrasion does not in any perceptible degree interfere with the natural, rapid and complete healing of the part, and yet a tendency to the coagulation of albuminous materials—a separation of the fibrinous elements of the fluids brought within its influence, is universally accepted." p. 18.

"Having, then, applied to the surface of the abrasion the living syphilitic disease germ of Beale, $\frac{1}{100,000}$ of an inch, or less, in diameter, with an amœboid power and capacity to appropriate nutriment, and to generate its kind, what follows? Its movement is with the *current*, and although its progress is retarded by a more or less complete coagulation of the tissue fluids, its tendency is still *toward a lymphatic canal;* and, aided possibly by its own vital movement, after a period more or less prolonged, dependent upon the difficulties in its path and the distance to be traversed, it is finally ushered into the interior of that vessel." p. 20.

But, even supposing that the "current" and the "amœboid movements", prove insufficient for the production of the disease germ, it has still another assistant, more powerful than either, in the *white corpuscle* of the blood (another "vital element") which, attracted to the sore by its local irritation, and "capable of seizing its nutriment by entrapping in its undulating tentaculæ and of enfolding and incorporating with its own elements not germinal matter alone, but foreign substances, as proved by actual experiment," (p. 20) speedily seizes upon the syphilitic germ and takes it unto itself. Once securely housed, the germ enters upon its course of mischief, subdivides and multiplies indefinitely, feeding upon and drawing further vitality from the congenial tissue of the living white corpuscle. Why are not the red corpuscles attacked also? Because, says Dr. Otis, Beale has proved the red corpuscle to be *formed material*, incapable of other change than disintegration, and the disease germ can only thrive upon *living matter*.

"The local action at the point of inoculation appears to me as follows:

1st. A coagulation of the superficial tissue-fluids. A dilatation of the superficial blood-vessels. A consequent

slowing of the circulation. The coincident attraction of a variable number of wandering white corpuscles—phenomena associated with any irritation of living tissue.

2d. An entrapment of the syphilitic disease germ by the wandering white corpuscle (through its amœboid movement) and the incorporation of the disease germ into the substance of the white corpuscle.

3d. An appropriation (as pabulum) by the disease germ, of the substance of the white corpuscle, and the consequent development and multiplication of the disease germ *in* the white corpuscle.

4th. A consequent necessity of the white corpuscle for an increased supply of pabulum from the tissue-fluids, the absorption of which, producing a rapid increase in size, and an abnormal tendency to fission or multiplication of the white corpuscle, through whose substance the multiplied disease germs are now disseminated.

5th. Through the multiplication of the white corpuscle thus impregnated by the syphilitic disease germs, the spread of the syphilitic influence at the point of inoculation, and from thence into the adjacent natural channels of the white corpuscle, viz: *the lymphatic canals*, through which, by aid of the lymphatic current, they are carried along until arrested in the substance of the nearest lymphatic gland." p. 21.

The first period of incubation therefore, or that elapsing between exposure and the appearance of local disease, is due to coagulation of the lymph near the original abrasion, and consequent mechanical retardation of development in the germ. The second period, or that elapsing between the indurated sore and roseola, for example, is due to a similar process supervening in the lymphatic gland itself, where further progress is temporarily arrested. Finally, some of the germs having multiplied enormously, work their way through the gland into the general system.

The theory is sufficiently pretty as it stands, but we cannot commit ourselves to a judgment upon it at this early day in its life. An extract from the London *Medical Times and Gazette* of January 27th, 1872, printed as a note, gives it considerable support, and should be noticed. At the last meeting of the Vienna Medical Society, a Dr. Lostorfer read a paper containing the results of his investigations into the microscopic appearance of the blood of syphilitic patients. Dr. Lostorfer, it appears, is a microscopist and

claims to have discovered the vital element principally concerned in syphilis. He places the blood of the syphilitic patient in a kind of moist camera, maintaining the normal temperature of the body.

"During the first two days of the investigation nothing could be seen except vibriones, bacteria, and commencing forms of sarcina. In the third or fourth day, however, minute bright corpuscles became visible, some of which remained immovable, while others continued in a state of undulation. Some of these bodies exhibited a projection." p. 28.

Growth continued until the bodies, generally exhibiting spots or projections, became as large as blood corpuscles. After eight or ten days a vacuola (!) was formed in the larger corpuscles, which extended over the whole corpuscle and finally terminated its existence. In this discussion, Skoda, Hebra and Stricker (all well known names) testified to having tried Lostorfer's accuracy several times, by sending him large numbers of specimens, some being from healthy and others from venereal subjects, and that in no case did he fail to distinguish one from the other. This is strong evidence, and we trust, although we scarcely dare to hope, that Dr. Otis may prove to have settled this vexed question and to have indicated the pathway of future research. We find a difficulty, however, in applying his explanation to the not uncommon instances of venereal infection following an indurated lump, preceded by no solution of continuity. For it is difficult to imagine a species of "formed material" more inert and incapable of supporting the disease germ, than the outermost layers of the epithelial tissues, just ready to be thrown off from the body altogether. Now, in these cases, has the disease germ survived the presence of this so uncongenial soil, and worked its way through the pseudo-mucous membrane into the cellular tissue beneath, where such indurations are found? (1)

But whether the theory hold good or not, the profession are deeply indebted to Dr. Otis for his careful and candid

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(1) "True syphilitic induration presents itself in three different forms, * * * * * * * and, third, in that of a deposit of well-defined induration *beneath unbroken skin.*" Report of the *committee upon venereal disease* in the army and navy, etc., etc., London, 1867—p. vii. We have also met with such cases in practice.

investigation of the history of the disease, and for the brevity and clearness of his descriptive statements. We have been led insensibly into a much longer discussion of this essay than we had intended; but the pamphlet appears to have been printed for private circulation only, and, being less accessible to the profession than could have been desired, will bear an extended notice.

Want of space must greatly abbreviate any notice of the other work, upon very large strictures of the urethra. Briefly, it comprises excellent practical directions for the treatment of certain troublesome cases of gleet, the like of which must often have baffled many of our readers, with detailed cases and drawings of instruments. Dr. Otis believes these cases to owe their obstinacy to stricture, of so great calibre as to be not detectable by the ordinary numbers of the catheter. In his practice, rupture of such strictures, by means of a dilator or the incision by an urethrotome (or, as with the instrument invented by himself, by both operations combined) has invariably proved successful.

For the rest, the pamphlets are comely and well printed upon good paper—as was to be expected from the imprint. They are marred only by a few trifling errors in proof-reading. J. H. K.

LITHOTOMY AND LITHOTRITY. Illustrated by cases in the practice of GURDON BUCK, M.D.; *pp.* 59: New York, Wm. Wood & Co.; S. F., A. L. Bancroft & Co.

This pamphlet is the report of Dr. Buck to the New York State Medical Society. It records to cases of forty-five patients, arranged as follows:

"Group I. Cases in which the moderate size of the calculus, and a favorable condition of the urethra and bladder, as also of the general system, indicated lithotrity as preferable to lithotomy.

"Group II. Cases where the stone was large, though soft; the bladder healthy, the urethra capacious—a concurrence of circumstances permitting the successful employment of lithotrity.

"Group III. Cases in which, from the unfavorable condition of the bladder or urethra, or from the large size and hard composition of the calculus, lithotomy should be resorted to in preference to lithotrity."

There are forty pages devoted to a description of the cases and mode of operating. Of the forty-five patients, forty-one were males, whose ages extended from 5 to 85 years; four were females, whose ages extended from 25 to 56 years. The ages in the lithotrity cases extended from 17 to 85 years; and in the lithotomy, from 5 to 65 years. Although there were but forty-five patients, five of them had relapses, making the total cases fifty-seven; of these, all but two were subject to lithotrity, but after a trial of it, six were abandoned to lithotomy. The deaths from the former operation, in the aggreate cases, were as 9 in 55, or as 1 to 6⅛. The mortality in Groups I and II, comprising thirty-one cases, including relapses, was as 1 to 20½. In the nine fatal cases, abscesses were found in the kidneys and their appendages. The only fatal case among the females was due to pleuro-pneumonia supervening.

Dr. Buck concludes in substance, as the result of his experience:

"1st. For patients under 17 years of age lithotomy should be preferred. Its results heretofore in such cases have been so favorable as scarcely to leave any other resource to be desired. * * * *

"2d. For adults, lithotrity is most advantageously employed when the patient's condition is such as existed in the cases comprised in Groups I and II. * * * *

"3d. If the calculus be found to be very hard and to measure an inch or more in diameter, * * * lithotomy should be preferred. * * * *

"4th. Great difficulty in passing the neck of the bladder * * * * should deter from lithotrity.

"5th. Lithotomy should be preferred in a debilitated or reduced state of the system from purulent cystitis and protracted suffering.

"6th. In a case of urethral stricture, its complete cure must be first ensured before the employment of lithotrity.

"It is also claimed that lithotrity is decidedly preferable in female patients, in cases of recently formed calculi, and in cases where the lithic diathesis is so persistent that new formations constantly take place."

In a supplementary report there are given six cases, of which five are of lithotrity and one of lithotomy; five were cured, including the lithotomy case, the other, a female, was relieved.

The Doctor illustrates his instruments and gives a full description of the operations in each case. It is admirable as a book of reference and a compact summing up of the results of a by no means small experience, in regard to variety at least.

THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR AUGUST, 1872.

Surgery.

ART. I.—*Phagedenic Chancre—Cases from my Note Book.* By H. W. BOONE, A. A. Surg., U. S. A., Fort Whipple, Prescott, A. S.

Case 1. W., *æt.* 70, merchant, had been under my medical care for several years; enjoyed good health; was quiet and regular in his habits. On the 4th Feb., 1865, he conculted me for a small sore on the penis which had appeared the preceding day. He said that on Christmas he had gone to a public dinner, and becoming slightly intoxicated, had visited a female, with whom he had intercourse. He was much alarmed afterwards, and had watched himself closely for several weeks, but finally became reassured. He had not had any intercourse of the kind for many years, and nothing but his unwonted vinous excitement could have induced him to expose himself. The sore when he first saw it was "a little pimple with a white spot," but it had grown so rapidly in twenty hours that he sought advice. The sore was about one third inch long, partly on the corona, partly on the dorsum of the penis, excavated, with irregular edges, slightly indurated, and covered with unhealthy looking pus.

It gave him great pain and was spreading rapidly. The sore was cleaned with lint and thoroughly cauterized with acid nit. mercury, a cold dressing applied and the patient put to bed, feverish, eyes bright and glassy, pulse 100: ℞. Pill opii, gr. 1, at once, and repeat at night. Feb. 5th. Slough loosening, pus under it, dress with vin. aromat. He slept well, but complains of gnawing pain in the sore. ℞ Ferri Pot. Tart., ℥ss; Syr. Simp., ℥ij; Aquæ, ℥iv; *M.* ℥s. ter. dies; also, an enema. Feb. 6th, 7 A. M. Slough separated revealed a sore 1⅓ inches long with ragged edges, deep, and with every appearance of spreading rapidly, discharge foul. Sore cleaned and cauterized with acid nit. mercury in every part and most thoroughly. Dressed the sore with charpie dipped in sol. of watery ext. of opium, ʒij to the ℥j of water. At 9 P. M. dressed sore; less pain; gave opii, gr. jss, at bed time. Feb. 7th. Was called to see him at 5 A. M. He was bleeding very freely from the surface of the sore. On exposure found it spreading, but not so fast as before. The hæmorrhage came from a number of points, and he had lost about 10 oz. of blood. Applied compresses wet in terri persulph, a bandage, and iced water. An experienced nurse was there to renew the cold continually. The patient's appetite continued fair; he had been encouraged to eat steak, eggs, and game, and was allowed some wine and milk punch. In the night the bleeding came on worse than before. Touched the bleeding points with a sharp point of nit. of silver; renewed the compress and bandage, and applied ice. Feb. 8th. No more bleeding; patient weak, blanched. The last slough separating has left a clean sore, and it has ceased to spread. The sore is 2 inches long, nearly as wide, and very deep. From this time there was no hæmorrhage, and the sore healed in six weeks from the first inception. The patient had a good nurse, the best of food, with a moderate allowance of wine and milk punch, and was visited two or three times a day. His prostration was so great that his life was in danger. Just three weeks after the first inception of the disease, indurative of the sub-occipital ganglia occurred, followed by a papular eruption. The latter was very profuse, covering

the trunk and extremities, and the skin showed a tendency to ecchymosis. The symptoms of general cachexia were marked. Mercurial inunction was commenced. He took cod liver oil, and had a generous diet. Slight ptyalism, when the mercurial was stopped for a few days, then resumed. At the end of the eighth week his health was greatly improved, the ganglia nearly normal, and most of the spots had disappeared. He began to go out and attend to his affairs, though still under treatment. A few weeks later he took a cold which soon developed into capillary bronchitis, ending fatally after a very short illness.

Case 2. *Chancroid, Mild Phagedenic.*—L. H., *æt.* 40, saloon keeper; stout, robust; a moderate drinker, and though obliged to keep late hours, enjoys good health. June 2d, had a small soft chancroid on the corona and dorsum of penis; no induration of glands. Sore cauterized, and to please the patient, mercury was given by the mouth. Mild ptyalism followed in a week and the mercury was stopped. June 17th. His sore is over one inch long, irregular, eaten out, but not very deep; is spreading, and he complains of gnawing pain. Cauterized thoroughly with acid nit. of mercury, dressed with vin. aromat. Cautioned to keep quiet and to use plain food. June 22d. The sore has continued to spread slowly, with some pain. Cauterize and dress with carbolic acid lotion. ℞. Ferri Pot. Tart, grs. xij, ter in dies. July 1st. Sore has continued to spread slowly. As cauterizing does not seem to help it, that was stopped, and a dressing of sol. ferri persulph used, but with no better result. Dr. Hammond, at my request, saw the case, and advised that the patient keep his room, lie on a lounge, and that the sore be dressed with acet. of zinc pulv. July 6th. Patient kept quiet and had the sore carefully dressed; no improvement. The iron seeming to disagree with him, was stopped. July 9th. As he continues in the same condition, and no treatment does any good, I suggested that we should treat the sore as an indolent ulcer and try the effect of pressure. I strapped the penis firmly with long strips of isinglass plaster, from the meatus to some distance above the sore. July 10th. Twenty hours

after, the pressure had caused severe pain. On removing the plaster, found the sore diminished in size rather more than one half, the decrease in depth was still more marked. Dressing re-applied. July 15th. Discharged cured.

Case 3. May 1st, 1872. *Chancre on Finger.*—L., *æt.* 18, musician, 21st Infantry; has a small sore on middle finger of right hand. It appeared as a vesicle eight days ago; he pricked it open with a pin. Now there is swelling and much pain; says he bruised it. Free incision and poultice. May 6th. Very little discharge; sore has an unhealthy look. Dress with cerat. simp. May 10th. Sore has everted edges, glazed; little discharge. Ordered weak carbolic acid lotion. May 14th. Sore red and inflamed; has a lump on top of head; says the pain there is worse at night. No history of syphilis, denies ever exposing himself. ℞. Potassii. Iodidi, grs. v. ter dies. May 21st. Find engorgment of sub-occipital ganglia; no traces of syphilis except sore on finger; penis and groins sound; no scars; enlarged ganglion on back of elbow; says he felt it there soon after the sore came, but it gave no pain. Mercurial inunction ordered. Dress sore with sol. liq. sodæ chlor. May 24th. Engorged ganglia; smaller sore looks better. May 27th. Ganglia decreasing; sore smaller.

These cases are selected as possessing peculiar interest. In the first, the patient and his habits were so well known to me, that there is no reasonable doubt but that forty days elapsed between the exposure and the first sign of disease. This showed itself in a very grave form, and was followed by marked cachexia and a bad eruption. Under the steady use of the mercurial, with cod liver oil, and good living, he improved remarkably fast. The fact that the external use of mercury occasions little or no derangement of the digestive apparatus, rendered it especially valuable in his case. He had almost entirely recovered his usual status, when exposure in bad wet weather, brought on the disease to which he succumbed.

The second case presents a man who, though in the enjoyment of apparent good health, still no doubt suffered from the effects produced by his late hours and habits.

The local disease was singularly obstinate and not amenable to any of the usual methods of treatment. The plan of treating it as a chronic ulcer and applying pressure, was one which I have never seen advocated by authorities. It proved so successful in this case that I hope others will give it a fair trial in similar ones, and report their opinions of its usefulness.

The third case appeared as a simple felon, with no history, and was treated as such. It was not until the ninth day after he came to me that I decided as to its nature, and even then was not sure whether it was primary or tertiary. Had I then looked for the ganglionic swelling at the elbow (about which the patient said nothing), I would have been assisted in my diagnosis. A few days more, however, settled the question. As to the origin of the primary sore no clue was obtained. This is one of those cases with nothing to excite attention at first, gradually developing itself, and where a little more care might have gained a diagnosis earlier. This made no difference with regard to the result, but it shows the necessity of being on the watch for every means of making a definite decision. Also, that no case is too trivial to demand a careful investigation.

Art. II.—*San Rafael Clinique.* By H. A. DuBois, M.D.

1.—*Hepatic Abscess—Opened in Inguinal Space—Erysipelas Supervenes—Abscess repeatedly opened by incisions at a distance from points of Fluctuation—Recovery.*

2.—*Abscess in the region of the Kidney—Opened by deep incision—A drainage tube worn for some time—Perfect recovery.*

The diagnosis of deep-seated abscesses is attended with considerable difficulty, and their treatment owing chiefly to this cause, is often unsatisfactory, both to the patient and the medical attendant. Abscesses occurring in the substance of the internal organs, or communicating with their outlets, are seldom diagnosed in their early stages by their objective symptoms, although frequently these, taken in

connection with the general history of the individual, will lead the observer to a shrewd guess, if not to absolute certainty, as to the real nature of the trouble. Two cases of abscesses of unusual interest, have occurred in my practice in San Rafael; the one hepatic, the other peri-nephritic.

I propose briefly, to give the history of these cases, and to make a few remarks on the treatment adopted.

CASE 1.—*Hepatic Abscess.*—October 21st, 1870. I was called to see one L., *aet.* 33, who resided about twenty-five miles from the village. He was suffering from great anxiety, having a hard, small wiry pulse of 130; a brown, dry and coated tongue; a hot skin and flushed face, with an expression of great suffering. He complained of a constant and deep-seated pain over the region of the liver. Percussion showed a circumscribed space of great dullness, some six inches in diameter, and careful observation detected a manifest enlargement, but no pointing or sign of fluctuation could be found. The bowels had for some time been constipated; the stool dry, and of a light color. For a number of days he had obtained hardly any sleep, and was constantly changing his position every few minutes. His history showed that some six months before, he had been suddenly lifted off his feet by the tongue of a wagon, and "had felt something give way in the right side;" since then, he has complained more or less, of deep-seated pain over the region of the liver. Until lately, he has been able to be up, but for the last ten days or two weeks, has been confined to the bed. He has never lived in a hot climate, nor suffered from malarial fevers, to his knowledge. The diagnosis was deep-seated abscess—probably of the substance of the liver; the prognosis was unfavorable. Tinct. Iodinii was ordered with Glycerine, to be applied by a piece of lint to the enlargement, and renewed twice daily, while a flaxseed poultice was kept over the whole region of the liver. The bowels were to be opened daily by Castor Oil; and Quiniæ Sulp. grs. xij, were to be taken during the twenty-four hours. The pain and restlessness was relieved by half a grain of Morphine, given hypodermically, while eight grains of Chloral, with five of McMunn's Elixir of Opium, were directed to be taken every hour, until sleep was procured, and to be used from time to time, as might be necessary to procure quiet. October 28th, the patient was seen for the second time. The treatment had been followed with good results. The tongue was moist and nearly clean; the skin less dry; sleep had been procured,

and the woe-begone look had passed away; the swelling was softer, extended over a larger space, and I obtained indistinct fluctuations at one point. An attack of erysipelas had set in the day before, and the groin being much swollen, it was determined to make an opening just above the inguinal space, as the erysipelas was attributed to matter collected there. The opening was made, a long bullet probe passed some ten inches upwards and inwards, giving escape to considerably over a pint and a half of fœtid pus. A weak carbolic acid solution was ordered to be injected into the abscess, through an elastic catheter, daily, and a large poultice to be kept over the whole region. Tinct. Ferri Chlor. was directed to be taken every two hours, until the erysipelas had subsided. This latter did not spread from the time of the second visit, yet large shreds of cellular tissue were removed from several incisions that had been made to relieve all tension. These healed by the 11th of November, leaving a large scar. The symptoms during this time had varied. The patient, notwithstanding the severity of the attack of erysipelas, had obtained a fair amount of sleep, and had taken nourishment in small quantities, at short intervals, together with ammonia and whisky. A cloth dipped in the carbolic acid lotion, was substituted for the poultice at first used, and the bowels kept open by Podophillin and Ext. Colocynth C. at night, followed in the morning by saline aperients. November 21st, the abscess had almost ceased to discharge, and soon after the wound closed. December 13th, the swelling returned and, warned by the previous attack of erysipelas, I was sent for in time to give outlet to the matter, thus avoiding a second attack. The incision was made above the former one, and gave escape to nearly a pint of pus, much better in character than the first withdrawn. The patient was kept for a few days on iron, the carbolic acid lotions and injections were again resorted to, and he was then allowed to quit his bed, and to take moderate exercise. February 23d and July 2d, 1871, this abscess was again opened, observing the same precautions as before, and gave outlet to smaller quantities of matter, and that of a much healthier character.

Since the latter date, he has been able to attend to the lighter duties of his ranch, though from time to time, he says he feels symptoms of a return of his trouble, *ie.* the abscess is filling. I am satisfied that the cavity, though much diminished in size, is still there. He has, for this

reason, moved to San Rafael, so as to be within reach, and I am in hopes, after once or twice more emptying the abscess, that it will become obliterated; this, I scarcely can expect to take place under one or two years. I have contented myself with keeping the bowels open, and improving the general health with tonics, and the use of Hydrochloric acid occasionally, by way of general treatment. His condition at the time of writing (Feb. 1st), is quite fair; he is able to attend to all ordinary duties—though, of course, not robust—still, few would suppose from his general appearance, that he had a large abscess in the liver.

CASE 2.—May 14th, 1871. I was called to see Miss ——, *aet.* 17. I found her suffering from great pain in the region of the right kidney, and on examination, discovered a swelling extending from the crest of the ilium to the lower ribs on the right side. The urine was scanty in quantity, but no pus or blood was voided; the tongue coated, and it, as well as the skin, was dry; the pulse was hard and frequent, and the expression anxious. The diagnosis was perinephritic abscess and, after consultation with Dr. Holman, who happened to be with me, and who kindly gave me the benefit of his experience in the case, it was decided to make a deep incision over the most prominent point of the swelling, although no fluctuations could be felt. Accordingly, an incision was made two inches from the transverse processes, and just below the last rib on the right side, until the firm fascia of the lumbar muscles was reached which, though pierced, yielded no matter. Having now gone to a depth of between three and four inches, and apprehending the danger of hemorrhage from abscesses, it was determined, as the patient was not within reach in case of emergency, to adopt the more cautious plan of inserting a tent and wait, rather than deepen the incision. This, accordingly, was done, and a large poultice was directed to be applied over the part, while Chloral and McMunn's Elixir were used to procure quiet, the bowels to be kept open, cooling drinks, etc., to allay fevers. May 21st, the patient was seen a second time. The wound was found discharging from its sides, but not from the abscess. Feeling sure that ample time had been given for the matter to come towards the surface, and fearing to wait longer, lest the neighboring organs, the kidneys, liver, or pleura might suffer, I freely laid open the fascia, and soon came—at a depth of nearly five inches—upon the abscess, which discharged

nearly a pint of tolerably healthy pus. A silver canula, with a flange was inserted, the carbolic acid lotion ordered to be injected through it daily; the canula to be worn continuously, and a large poultice applied over the whole region for a few days, to be followed by a cloth covered with oil-silk, and wet with the acid. After wearing the canula some ten days it was removed, and in a few days the fistula was nearly closed—the abscess having meanwhile, almost healed up. Iron and porter with a meat diet, by the middle of June, had completed the cure. The abscess, measured by a bullet probe, was eight inches vertically, by nearly ten inches horizontally. It was evidently not connected with any organ, though from its size, there was great danger of its opening into the pleura.

Since this cure, I have read a monograph on perinephritic abscesses, by Dr. H. I. Bowditch, of Boston.* In this, he gives details of nine cases, and advocates an early resort to the knife, even in some cases before fluctuation can be obtained, in order to prevent damage resulting to the neighboring organs, but insists upon caution in its use, owing to hemorrhage. His cases illustrate both dangers well. He says: "If ever there be occasions for a cautious boldness on the part of the surgeon, these abscesses present them." He, however, does not mention the use of the carbolic acid injections, nor of the wearing of a drainage tube. The constant empty condition of the abscess thereby obtained, together with the antiseptic action of the carbolic acid and glycerine, I consider points of great importance, applicable alike to abscesses in the substance of organs, as well as to those in the walls of cavities. The only other remark I have to make on these cases, is on the singularity of both occurring in the same locality, and apparently without any common cause, and in a rather cool and healthy region, but a few miles from the Pacific Ocean.

July 17, 1872.—Since writing the above, the patient, whose history is given in *Case* 1, has remained in good health, and though I believe the abscess still to exist, yet it causes him little or no inconvenience at present. *Case* 2 has proved a permanent cure.

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* "Perinephritic Abscess.—Its Complications and Treatment." By Henry I. Bowditch, M.D. Published in the First Medical and Surgical Report of the Boston City Hospital Boston, 1870.

Institutes and Practice of Medicine.

ART. III.—*Paper on Vaccination and Revaccination.* By JAMES P. WHITNEY, M.D.

[Read before the San Francisco Medical Society.]

Mr. President:—What I offer in the opening of the discussion this evening, will be in the form of such definitions, propositions and conclusions, as embody and express my conviction on the subject, whilst they conform to the rules of sound medical logic and comport with the honor and dignity of the profession to which we belong, and the best interests of the community in which we practice that profession.

Variola results from, and reproduces in the human system a morbid poison, communicated to unprotected individuals either by means of aerial contamination through the lungs, or by inoculation through the skin. After an incubation of from seven to twelve days, and a remittent form of fever of from a day and a half to two days and a half, an eruption appears, which is first papular, then vesicular, then pustular arriving at the latter stage about the ninth day from the commencement. The pustules umbilicate, scab and dessicate, leaving peculiarly foveated cicatrices usually of life long durability. The cause of the disease is specific, and the susceptibility of the system to its influence is generally exhausted by a single attack.

The immunity from future attacks, furnished by our experience of its phenomena, is not peculiar to small pox, but exists also in several other diseases, as measles, scarlet fever, and varicella among the truly eruptive fevers, and to a degree in mumps, whooping cough, and typhoid fever; and in the opinion of some, syphilis belongs in this category. However, the facts regarding the immunity furnished by the filthy process of syphilization may be regarded, there is no reasonable doubt of the inoculability of syphilis in com-

mon with small pox and cow pox, at least, if not measles, scarlatina, glanders, farcy, eczema, ecthyma, struma, etc., etc., as claimed by many.

Vaccina, when traced to its source, may be defined as a disease causing umbilicated vesicles of a livid blue color, to appear on the teats of the cow, which vesicles contain a limpid fluid, that applied to the skin of an unprotected person beneath the cuticle, causes an umbilicated vesicle to arise, and pass through stages of pustulation and dessication, attended by specific febricula and slight affection of adjacent lymphatic ganglia, exhausting in the individual more or less permanently the susceptibility to its contagion; also to the infection or contagion of small-pox as effectually and as permanently as variolation would do.

The cicatrix of genuine vaccination, is foveated like that left by the variolous pustule, and when perfect cannot be distinguished from it, and need not be confounded with one from any other source (?) Wherever this true variolous or vaccinous scar is found on an individual, with its characteristic fovea, or little shining pits, to the number of from five to ten, I believe, we may be sure that neither the variola nor the vaccinous process, can be perfectly reproduced in such individuals. If the protection is imperfect, either by original deficiency or lapse of time, varioloid or vaccinoid may be produced.

We are told by those who have enjoyed large means of observation of the cow-pox, that there are eight readily distinguishable varieties seen among cows, five of which are communicable to the human being, and exhaust in variable degrees, the susceptibility to either variolation or vaccination.

The specific consequences observable after a successful first inoculation with genuine humorized vaccine virus, are at the point of insertion. On the third or fourth day, a small red papule; on the fifth or sixth day, this becomes a vesicle, which, on the seventh or eighth day, attains its full size, and has a central depression; on the ninth day, its contents became cloudy, and a red halo surrounds it; on the tenth day, the contents become purulent and dessication

begins, and towards the end of the third week, a smooth, brown, rounded-edged crust falls, leaving a slightly excavated rounded, pale red cicatrix, with from five to ten little pits or fovea, marking the component cells of the pock.

Vaccinoid is the result of vaccinating one who has become again more or less susceptible of the action of the virus, either after a previous vaccination, or after having suffered an attack of small-pox. It is successful revaccination.

Varioloid is the result of the variolous infection on one who has been previously subjected to the operation, either of the variolous or vaccinous process, and has partially lost the protective influence. The phenomena of true variola are variously modified in this disease, both as regards the extent and quality of the eruption, and the severity of the fever, which precedes, as well as that which follows it; the latter indeed, or secondary fever, rarely occurring at all. Varioloid is small pox nearly shorn of its danger, but not of its infectiousness.

Whether vaccina is the effect of the variolous poison communicated to the unprotected cow, and returned to us with its full protective power, against the loathsome and fearful disease, from the contagion of which it originated, but completely divested of the power of aerial infection, as well as of all its most dangerous characteristics, as argued by Ceely, and adopted by Copeland and many others, or whether it came to the cow from the greasy heel of the horse, makes no difference to us, till we feel the necessity of resorting to fountain head for virus, and then it makes a vast difference.

If we look for authority or statistics to settle the question, we find them in abundance on every hand, and in support of the most opposite theories, no one of which seems to have a monopoly, either of "high authority" or "reliable statistics!"

Authority, statistics, rhetoric and logic are all valuable, but in the settling of vexed questions, a sound logic is indispensable. Authority may be prejudiced, statistics false, rhetotic inflated, and at the moment, we may be powerless to correct their influence over the decision of the question

at issue, but if the logic is bad, we can, at any and all times, compel adherence to strict logical rules, or point out departures therefrom, and by so doing, test the validity of any theory submitted to investigation. In looking over the present subject of discussion, we find theories put forward on different points, and authoritative opinions published, which are not only logically inconsistent with each other, but also with facts upon which they profess to be based.

There are many circumstances which render the protective influence of vaccination imperfect, even where the lymph is perfect with which it is done. Such are, as many observers tell us, the eczematous herpetic and impetiginous skin diseases, and whilst the vaccinated of these classes are left imperfectly protected, the virus they furnish, if engrafted upon healthy subjects, cannot be expected to furnish to the latter a protection, which it failed to give to the one from which it came! Whilst there is reason to fear that in some few cases, a new poison may be introduced into a previously healthy system, often difficult of eradication.

The natural susceptibility to variolation or vaccination, exists at every period of life; but in varying intensity at different periods which show some relation to the evolution of the important functions of circulation, respiration, nutrition, and reproduction. Beginning in fœtal life, it is intensified at birth, and again about the completion of the second dentition, and again at puberty.

It accords with these views, to regard the first, the eighth, and the fifteenth years, as marking important periods for the legal enforcement of vaccination and revaccination upon all children in countries that enforce the observance of sanitary laws for the protection of human health and life. That vaccination well done at any of these periods, has proved protective for the remainder of life there is abundant proof, a majority of those who are so vaccinated, never showing any specific effects from revaccination. Neither vaccination nor variolation furnishes absolute or perpetual protection or immunity from the subsequent effects of either poison in a few exceptional cases.

As there are certain conditions of system tending to im-

pair the protective influence of vaccination performed during their continuance, revaccination may be necessary after such conditions have passed away. Also when the variolous influence is abroad in an epidemically intensified form, it becomes not only highly proper, in order to secure the most perfect protection of every one against it, that the evidences of such protection be thoroughly examined, but also wherever there is a reasonable doubt of perfect protection, to err, if at all, on the side of safety and revaccination.

Primary vaccination should be done during the first year of life, and revaccination during, or after the eighth year, and again during, or after the fifteenth year. After this, provided that each operation has been done with good virus, and in a proper state of health of the recipient, the immunity will last through life.

ART. IV.—*Local Application of Carbolic Acid in Small-pox.* By L. C. CHURCHILL, M.D., Resident Physician to S. F. County Alms House, and in charge of Pest House.

As any mode of treatment that is calculated to ameliorate the condition of those suffering from this dreadful scourge must be considered of value in proportion to the completeness of the relief afforded, I offer to the profession the following results of treatment in two cases in the Small-pox Hospital, in July, 1872. The first was that of a young man aged 17 years, suffering with variola discreta. There were only about sixty pocks on the face, but these were very large at the base and excessively prominent, exhibiting the most completely formed eruption possible at the seventh or eighth day. I added a very few drops of water to the carbolic acid, rendering it of a thick syrupy consistence, and with a camel's hair pencil applied a single drop to the point of each pustule, on the face. On the next day every one of these pustules were shriveled up, nearly black, and on the third day from the application, they fell off, leaving no pit; now, at the lapse of about two weeks, there is no pock mark

on this patient's face. All the pocks on the limbs and body, not touched with the acid, took nearly the usual course, but shortened, I believe, by the use of sulphite of soda, which I had administered to him during a period of about one week, every three hours, in twelve grain doses.

The other case was one of variola confluens at about the twelfth day of the eruption. The face was covered by a hideous mass of scabs, dried matter and blood, forming a frightful looking mask some three or four lines in thickness. There were no distinct pocks discoverable, but all had run together in one foul crust. The carbolic acid, prepared as before, I applied as a varnish freely to the whole face and ears; the patient being in an apparently semi-comatose condition, did not seem to suffer any pain from the application of the remedy. On the next day, the appearance of all the parts touched was so manifestly improved, that I was encouraged to extend the use of the acid, and therefore applied it to the backs of the hands and around the wrists. The results were most unmistakable, and I will add, gratifying. On the face, the eruption dried up with promptness and fell off in large scales; in fact, the cuticle of the whole face came off, leaving the surface smooth and healed up, and it would require close inspection to discover by the appearance of this man's countenance whether he had ever had the small-pox. The hands and wrists fared equally well, the whole epidermis having come off smoothly. On the balance of this patient's limbs and body, the ravages of the disease show frightful cicatrices, and it will yet be a month before he can be rendered presentable. I will add that I also gave this man twelve grain doses of Sulphite of Soda every three hours, and he rallied rapidly; his general health, notwithstanding numbers of large abscesses that supervened as sequelæ, has become very good, and he is now strong, eats and walks around as ordinarily, before being attacked. As to the value of carbolic acid in this disease, applied as above described, there can be but one opinion in the minds of any who had opportunity to observe the evidently rapid, marked and favorable changes in the two cases presented. The effects of the Sulphite of Soda were also such as to strongly guarantee the further use of this remedy in proper cases.

Gynecology and Diseases of Children.

ART. V.—*Case of Complete Prolapsus of the Gravid Uterus.* By DR. M. H. BIGGS, Santa Barbara.

There being so few recorded cases of complete prolapsus of the gravid uterus, I thought a short description of the following might be found interesting:

Was hurriedly called upon by an old woman one night about 10 P. M., who said her daughter (aged about 20) was suddenly taken sick and seemed to be dying. Without further explanation I hurried to the patient's bedside and found her almost in a state of collapse; cold perspiration all over; pulse small, quick and scarcely perceptible. Administered brandy at once, and after two or three good doses she recovered sufficiently to whisper that "something had dropped out" and "was hanging between her legs." Upon introducing my hand under the bed clothes, it came in contact with a round, hard, pendulous tumor, extending to within about four inches of her knees. It was about six inches in diameter, and was in fact the prolapsed womb hanging by the relaxed and everted vagina, which could be distinctly clasped between the labia externa and fundus uteri; but why so large?

The patient was not in a condition to answer any more questions, and the old lady had left us alone, probably suspecting more of the cause of the trouble than she wished to communicate. Of course the first thing was to replace the organ, and this was accomplished by using steady pressure applied by the hands, smeared with oil during about an hour, after which time, to my infinite satisfaction, it popped into its place with an almost audible "flop." Then there was a most acceptable period of repose, during which, after I had made her swallow some broth and more brandy, insisted upon her communicating to me some of the ante-

cedents of the case, she told me that her courses had stopped —she had missed four periods—and that within the last month she had enlarged so much that her mother had noticed the alteration in her form and charged her with being pregnant, which she of course denied. Mother continued to threaten in case she were so, etc., etc. This made her desperate and she conceived the idea of starving herself, thinking in this way to kill the child and thus produce abortion. She had in fact refrained from all food for the last three days, allaying the cravings of hunger by incessantly smoking cigarettes, and feeling her strength to fail on the afternoon of the third day, had made a last attempt to gain her end by lying on her back on the floor and pulling over on to her belly a "metáte," which is a slat of stone used by the native Californians for the purpose of grinding corn, and weighs about thirty to forty pounds. This "metáte" she kept in motion, with the little strength she had left, by pushing it up with her hands and at the same time contracting the abdominal muscles, then suddenly relaxing these and pressing down the slat with her hands, and in this way, aided by the momentum imparted to the weight, kept up a kind of pounding movement until she "felt something gradually go down" and "press out." Thinking then that she had "started things in the right direction," she got up and managed to keep about as well as possible until night, when "the something" fell out, but to her horror, instead of separating as she expected, remained hanging down between her legs. She went to bed without taking time to undress, covered herself up and had remained there about two hours in the condition I had found her. While giving her broken account of these sad troubles, slight labor pains came on, and in spite of all that could be done to prevent it, she was delivered a little before daylight of a four or five months fœtus, thus ending a most anxious night.

The patient made a good recovery, and in ten days was attending to her usual avocations; has since been married and had healthy children.

There is no point of special interest in this case except the effect that starvation, aided by the free use of tobacco.

may be considered to have had in so completely relaxing the muscular system, as to allow a gravid uterus of such size to be so completely dislocated. For the violence that was used, of itself, would scarcely have sufficed.

ART. VI.—*Premature Artificial Labor.* By ADOLPH ANDREI M.D., San Francisco.

(Continued from page 406.)

Observation:—Louise Grivaux, sewing girl, *aet.* 34. Admitted in the service of Prof. Depaul, March 1st, 1868; bed 151, of the obstetrical clinic; woman with chestnut colored hair; large and muscular build. At twelve years of age, she had had an inflammation of the intestines, nothing else of note. Menstruation began at eighteen years, regularly and without difficulty. Last menstrual period occurred May 25th, 1867. Almost immediately afterwards, nausea and vomiting. After one month the limbs were swelled; œdema of the walls of the abdomen supervened, also slight œdema of the buttocks; no albumen in the urine.

The patient whose abdomen is naturally well developed, presents the uterus elevated about the breadth of two fingers above the epigastric line. On palpation, the fœtus could be felt, but its superior limits were made out with difficulty. A round, hard portion presents, which appears to be the head. The pulsations of the fœtal heart are felt in the entire extent of the inferior segment of the womb, almost with equal intensity; the maximum however, appears to be on the right side; 134 to 138 pulsations per minute. Placental souffle to the left. The external genital parts are somewhat turgid; they present nothing abnormal in conformation, excepting as to the orifice of the vagina, which appears to be deeply and posteriorly situated. On introducing the finger in the vagina, it seems to be pressed upon by the branches of the pubis, which appear to converge as if they had sustained lateral pressure. Movements of the finger in the posterior portion of the pelvis, are free. The symphyses appear to be turned backwards, and slightly elevated. The neck is small and pointed, and situated in the axis of the vagina. The internal measurements made with difficulty, by M. Charpentier (chef de clinique), were too inexact to warrant the importance they may have in

other cases. The figures, being really of no value, were not reported. The most important point to mention, is the diagnosis of Prof. Depaul, made after a careful examination, namely, that a diminution in the capacity of the inferior strait existed (Bi-Ischiatic.)

A few days previous, she lost a small quantity of blood, and it was a few days from that period, that the contractions of the uterus began to take place.

March 2d. The genital parts are to-day less infiltrated; no albumen in the urine. March 5th. The first pains were felt during the day. March 6th. Rupture of the membranes at 6 A.M. The neck is dilated a little more than a five franc piece; it is soft. The head engaged in the excavation, arrives on the right inferior strait; at one P. M., the neck in same condition. The *caput succedaneum* increased a little in volume; fœtus alive; pulsations of the heart on the right side. March 7th. The pains have continued all day yesterday, and all night. The neck is still soft and souple but a little more dilated. The head engaged a little more. The *caput succedaneum* larger; prescribed a full bath. March 8th. In the morning the neck is softer, much more dilated, although not entirely. Pulsations of the fœtal heart very distinct; occiput backwards, and on the right side. At 8½ A. M., Prof. Depaul made a first application of the forceps, to procure the rotation of the occiput, which was accomplished without much difficulty; then a second application, with powerful traction, completed the extraction of a live fœtus, with paralysis of the face, and bruises on the right eye. Everything terminated regularly. The same evening the patient did not complain of any pain. Abdomen soft; pulse 84. March 9th. Pulse 84. Nothing abnormal about the abdomen. In the evening, *the flowing of lochiæ* was sufficiently abundant. There was no complication of any importance to the mother, till March the 14th, when she was taken with suffocation and chills. Appearance of the face was much altered. In such a condition, and against all wise advices, she wished to return home, where she remained only for a short time, as on the 19th of March she died at the Hospital of La Charité.

The autopsy showed a *puerperal metro-peritonitis*. No stricture in the *inferior strait*. The two *pubes* normal, and the *arch of the pubis* was free. The branches of the ischia, normal. Before and behind the neck were found two fibrous tumors, the size of a walnut. The one behind was soft; that before was hard as *osseous tissue;* it was connected at its base by a sort of *pedicle*, and embraced the posterior face of the *Ischio-pubian* branch, and seemed to make one body with the bone, although the latter was healthy.

Constrictions of the Pelvis proper, are not the only cases in which premature artificial labor is resorted to. The indications which may call for that operation, are numerous, since woman is subject to so many different and serious diseases during the last months of pregnancy, which condition tends to develop, or, at least, to make such morbid cases worse. But here the indications are much more difficult to determine than they generally are in cases of *constriction of the pelvis.*

In cases of *pelvic stricture* the question is one of mathematical precision; and here, on the contrary, are required delicate appreciations and the tact of an experienced physician, qualities that depend almost entirely on the skill of the accoucheur.

I will first make a brief review of the diseases which may decide the accoucheur to procure premature artificial labor, reserving for me to study afterwards more specially the indications offered by *pelvic stricture* and each different *modus operandi.*

One of the most important cases which require the provocation of premature labor, besides bad conformation of the *pelvis*, is that of serious hemorrhage of the uterus, principally when determined by the insertion of the *placenta* on the *neck.* In such cases *forced labor* had been advised a long time ago, and the artificial rupture of the membranes, recommended in our time, is nothing but a method for provoking and developing the contractions of the uterus. When the placenta is inserted on the inferior segment of the uterus, it cannot follow the enlargement of that segment, during the last three months of pregnancy, the vessels being torn, cause cases of hemorrhage, more or less serious. In all cases where children of a certain mother die from a pathologic condition of the *placenta,* Prof. Simpson thinks that premature artificial labor, about the seventh or eighth month of pregnancy, is a method of treatment approved by theory, and which ought frequently to take place in practice. He recommends this system in all cases where the placenta is seriously affected at each pregnancy.*

Admitting in principle that the provocation to premature labor is an extrême resource, it will be resorted to as a last chance, to stop those unconquerable vomitings which endanger the mother's life, when everything else has been tried without effect. Merriman gives credit for the initiative in that case to a surgeon whose name he does not mention, and who procured premature labor with complete

*Simpson's Obstetric Memoirs, vol. II, p. 461.

success in the case of a woman affected with unconquerable vomiting.

Fœderé relates a case of a very delicate woman, who, in consequence of unconquerable vomitings, was doomed to certain death. After trying every possible way to relieve her, Dr. Simmons at last determined to produce premature labor in the seventh month of pregnancy. On the 24th of March, 1813, the labor commenced, and at 10 P. M. the same day, the patient gave birth to a child who lived. After *parturition* all the phenomena gradually ceased.†

In all cases, then, of unconquerable vomiting, when all resources offered by therapeutics have been unsuccessfully tried, I believe that not only premature labor, but even abortion must be resorted to by the physician.

The death of the fœtus is the only thing that could make the operation objectionable, for it is a remarkable fact that the vomiting stops at its death, even when it may not be expelled for sometime afterwards. Although numerous facts establish the truth of this assertion, the vomiting has often been observed to continue after *parturition*, and the woman has died. These cases, which we may call exceptional ones, and perhaps a few others, brought about by special causes, among which I will mention a tardy interference of art, are, nevertheless, worthy of consideration, and ought to induce us to avoid absolutism, which, if accepted, is always, in medical sciences, a retrograde step.

Artificial premature labor was for a long time considered by a large number of practitioners as the last resource in eclampsia, taking pregnancy to be the first cause of that nervous affection. Lately, however, that opinion, which was formerly admitted by nearly every medical man, has been shaken to a great extent by the fact that eclamptic convulsions have been noticed to persist several days after the spontaneous expulsion of the fœtus, or its artificial extraction. Another objection to premature artificial labor is this: the means employed to bring on the labor are very slow, whilst the progress of the disease is very rapid.

That operation, objected to by Dubois and Noreau, admitted by Velpeau, Stottz and Cazeaux (the latter, however, has lately modified his opinion from the knowledge of facts, and without openly rejecting the operation, considers it as applicable only in some exceptional cases); is, by some practitioners, absolutely disapproved. Among the physicians who passionately oppose the provocation of premature labor in cases of eclampsia, Prof. Depaul occupies a prom-

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† *Dictionnaire des Sciences Médicales*, vol. LXIV, p. 77, article "Police Médicale."

inent place, considering it as useless, since he has seen in his practice several cases in which eclamptic convulsions persisted after the womb had become empty. According to this distinguished practitioner, the only case in which artificial labor may be resorted to, is when the neck is dilated, or dilatable, the head engaged and compressing the *perinæum*.

In that case only Prof. Depaul approves of premature labor, because he thinks that the compression of the *perinæum* may produce eclampsia.

(It seems to me that the French accoucheur gives too extensive a signification to the words artificial premature labor, since the invariable and positive indications which he sets forth as conditions of that operation do not constitute artificial premature labor, properly speaking, but a simple interference of art which we are so often compelled to practice for numerous complications which may present themselves during labor, without the existence of any case of eclampsia. For that reason, and according to my appreciation of artificial premature labor, I do not consider as such, the interference of art described by Dr. Depaul in his remarks, and I believed he would have observed the rules of logic better had he also neglected to quote that indication of artificial premature labor, which does not constitute, I repeat it, a true and proper case of premature labor, but a simple and ordinary termination of it through the interference of medical art.)

Prof. Depaul, then, refuses absolutely the interference of art in cases of eclampsia, more by a spirit of system, than for reasons suggested by strict observation.

Effectively, without pretending to give an opinion on a question as difficult to solve in a scientific as in a social point of view, I beg leave to give my own observations on that subject. Besides, if it is not absolutely proved, it is at least true in most cases, that provocation to labor in cases of eclampsia is not injurious to the mother, but on the contrary, according to the first principle, is favorable to her well-doing.

It is also established that the death of the fœtus takes place in almost every case of eclampsia; an unavoidable and necessary consequence of the grave disorders arising from the maternal circulation, and not a result of the violent contractions of the uterus, as it was formerly believed.

It is admitted, that this disease, generally fatal for the fœtus, is not very serious for the mother, contrary to what was formerly the general opinion. I will, then, ask the question, why should we, in presence of the certain death of a living being, absolutely give up an operation which is considered harmless, for the only reason that in several cases eclamptic convulsions persisted or reappeared after it? Here the champions of social right will answer me that the fœtus is living, but not in a social point of view, whilst the mother, by the importance of her social relations, is entitled to the preference. Even admitting the

rationality of that principle, which I do not, I do not think it can be applied in this case, for the mother is not injured by the premature labor procured to save her child, as is the case in bloody operations practiced on herself, but, on the contrary, her health may be benefitted. However limited may be the rights to that existence we may allow the fœtus, it is undeniable that by abstaining from performing that operation we bring as a constant result its death. What makes this question a subject to controversy and hard to decide, much more so than its scientific difficulty, are the different opinions of social right which are brought to bear upon it; and from that point of view, I will affirm that I cannot consider any difference between the rights of the two beings—the mother and the child, and consider it as unjust to save one in preference to the other, whilst the object of science ought to be to save them both. As for the objection arising from the slowness of the way of proceeding, when compared to the rapid progress of the disease, I consider it as of little importance, inasmuch as with the resources of science in our days, the operation can be achieved in a few hours.

Although this be out of my subject, I cannot, however, refrain from saying a few words concerning the curative method employed by Prof. Depaul, in cases of eclampsia. He recommends *general bleeding* as the first and only *curative means*, which is generally to be repeated several times in a few hours, going so far as to draw sixty-six ounces of blood. Bleeding then, is, according to Prof. Depaul, the specific remedy in cases of eclampsia. Indeed, in his report to the Academy of Medicine on that disease, he declares it to be, in that grave affection, the great *sheet anchor of life*, and that it was necessary to carry it to the last degree.

It does not require a great form of argumentation to prove the absolute error of this practice. Theory, statistics, clinical cases, and the opinions of the most distinguished physicians; everything tends to show bleeding as a means of treatment doubtful, unrational, and often very dangerous in cases of eclampsia.

This proscription of bleeding will certainly not be absolute, otherwise we should fall into the opposite extreme; but it will be usefully resorted to in certain cases of robust and plethoric women. This blind and stubborn preference for bleeding, is so much more to be regretted, as every day's experience shows us clearly the power of *anesthesia*. The results obtained through chloroform, in the treatment of eclampsia, have been far beyond the hopes of physicians.

In Germany, in England, in France, chloroform is used

against eclampsia with wonderful success, as it is proved by numerous observations. It is really difficult to understand how some practitioners can still fear this remedy, a sure and harmless agent, in presence of the uncertainty and dangers of other means, in that dreadful disease..

Artificial premature labor has also been recommended in cases when the fœtus is dead in the womb, or when the pregnancy is *slow*. It is hard to understand how this idea may have arisen in a few minds, in regard to a case as common as the death of the fœtus in the womb. We can only understand it when we think that a special maceration was considered as a real putrefaction, taking place in the fœtus, while the *ovum remains intact*, and the mother free from danger.

Artificial premature labor has also been proposed, when, in the previous cases of pregnancy, the fœtus died before the natural term. This constitutes a very difficult question, one in the solution of which the responsibility of the physician is seriously engaged. It is very unfortunate, certainly, to see the fœtus die repeatedly before the term, five, six or eight times in so many successive cases of pregnancy; but it is not less worthy of notice, that notwithstanding the fatal termination of the previous cases, we never can know whether the case we have on hand will not come to term. To establish on this subject a general rule is evidently an utter impossibility; and for this reason, the solution must be left to the sagacity and to the faculty of observation of the physician who may have observed carefully the previous cases

Artificial premature labor may be also used as a last resort for saving the mother and fœtus in cases of active or passive *dropsy* of the *amnion*, with or without *ascites* or infiltration of the lower limbs.

Finally, I will say that the various *acute diseases* which may happen during the pregnancy, do not admit the practice of artificial prematue labor. Those affections, when intense, become aggravated, and almost always fatal in consequence of the labor. It is most advisable in their treatment not to excite the contractions of the uterus,. but on the contrary, to try to prevent them.

Among the numerous cases, the only one, then, in which the practice of premature artificial labor is generally admitted, is that of malformation of the *pelvis*.

Ophthalmology and Otology.

ART. VII.—*Catarrh of the Mucous Membranes of the Ear.* By WM. F. SMITH, M.D., San Francisco.

It is a popular idea, shared by a certain proportion of the profession, that deafness is a natural accompaniment of old age, and when deafness appears after the age of forty-five, without any cause apparent by external examination, the patient is generally satisfied with the explanation so easily given by the family physician, that his ears are muffled by the weight of years.

There is a physiological reason why the old man holds his book almost at arm's length, in order to read with comfort, and the failure in distinct vision for near objects is as sure a reminder of accumulating years, as gray hairs. But there is no analogous reason why age should be accompanied by difficulty of hearing. Spectacles for the ears have not yet been discovered. There must be some reason, however, why so many old persons are hard of hearing. And if we cannot promise aid in all cases of confirmed deafness, we may, in studying the causes of the difficulty, be able to point out some prophylactic measures, which certainly should not be neglected. Observation proves that deafness in one or both ears, is much more common than is generally supposed, even in young persons. The writer, while a medical student, examined the ears of nearly all the young men of the class of which he was a member. Of 150 students, or 300 organs of hearing examined, 120 were found imperfect in hearing power, viz., four individual organs in every ten (40 per cent.). Some seemed to be actually unaware of the difficulty, and comparatively few had thought it of sufficient importance to consult a medical adviser. Those only whose hearing power was impaired on both sides, had generally sought advice, and many had been told, "it was of little consequence;" "it would wear away,"

or "you will outgrow it," etc., etc. We are not aware that this class of students was remarkable for its heedlessness or dullness either of perception or of hearing, and if it can be supposed that the above result of examination presents anything near a correct proportion, as to the health and disease of the organ in the middle classes, we can certainly account for the frequency of deafness in old age.

Most physicians of to-day, are possessed of a conical ear speculum and mirror, and when a patient presents himself with disease of the external ear, including the surface of the membrane of the tympanum, he is generally supplied with treatment more or less rational and successful; but if no external visible inflammation exists, the deafness complained of is likely to be attributed to some obscure inaccessible cause. The difficulties of the examination of the mucous membranes of the ear are so great, that few general practitioners give themselves the trouble of acquiring any facility in the use of the Eustachian catheter or other instruments necessary to the examination of these parts. It may be argued that these are matters for the specialist, and while, to a great extent, this is true, still the family physician has necessarily the entire charge of so many diseases, such as measles and scarlatina, besides the entire class affecting the respiratory tract, all of which are very liable to be complicated by ear disease, that much more attention than is usual should be paid to the study of the diseases of the middle ear. If the Eustachian catheter as a means of diagnosis, was more generally understood, and more extensively used, society would not be deprived of so many useful members who fail to appear, preferring the communion of their own thoughts, to the only disconnected phrases they are able to collect in the drawing room.

It is useless for the physician to expect to be able to use the catheter by rules, however carefully studied, just as it would be needless for the young mechanic to expect to "shove the jack-plane" by theory. One must have careful and persistent practice, the trouble of which will be amply repaid by the facility thus acquired, not only in the diagnosis, but in the treatment of many acute diseases of the middle ear.

Acute aural catarrh is very common in infancy and childhood, as an accompaniment of exanthematous diseases. The skin being, to a great extent, unable to perform its functions, the whole duty of ærating the blood devolves upon the lungs, and the respiration is correspondingly more rapid than normal, thus inducing inflammation of the mucous membrane of the throat, fauces, and of the opening of the Eustachian tubes. This inflammation may be rapidly communicated to the entire membrane of the tubes and middle ear. It is commonly very violent. The mouth of the tube becomes closed by the tumefied membrane, and the pus forming in the tubes and chamber of the tympanum, can find no outlet. Its accumulation and pressure may cause rupture of the *membrana tympani* by absorption, or it may even reach the cavity of the cranium, through a softening of the thin bone forming the roof of the cavity. Through the vascular connection of the membrane of the cavity with the meninges, a meningitis may be induced with all its alarming symptoms, and often fatal results. The same chain of symptoms may be caused by pneumonia of infants, and has given rise to the term "cerebral pneumonia." Post mortem examinations, made in a large number of cases in the hospitals of Germany, abundantly justify this explanation of the cause and progress of disease, as well as the immediate cause of death in a large majority of cases. Often when the little patient recovers from the disease, he is found to be deaf, and probably, subsequently swells the number of inmates in some asylum for the deaf and dumb. We would refer the reader to a very interesting chapter of Tröltsch on the Ear, pps. 392 and 410 inclusive, giving statistics, etc. The general practitioner, if acquainted with the means of examination, and the dangers to be dreaded, will often be able to avoid them, and to guide his little patient safely past a quicksand, upon which life would otherwise be certainly wrecked. What could be simpler than a paracentesis of the membrane, after it is ascertained that the cavity of the tympanum is filled with pus, thus avoiding all danger of infiltration under the meninges? Every one having charge of children, suf-

fering from the diseases referred to, should certainly be enough of a specialist, to be able to study symptoms referable to the ear, rationally.

When the little patient complains of pain around the base of the skull, and vomits frequently, or presents other symptoms of brain difficulty, the membrane of the tympanum should be carefully examined with the mirror and speculum, and if it is found of a yellowish color, instead of the bright pearl color of the normal membrane, or if it is injected and bulges externally, the cone of light having disappeared, the point of a long narrow knife should be made to penetrate it between the handle of the malleus and the long process of the incus in a vertical direction, allowing the escape of pus and serum, which may be there confined.

The operation cannot be productive of harm, as these wounds seem to heal very readily; indeed, after such a paracentesis, the membrane should be closely watched, and the opening be reinstated as fast as it closes during some days, or until all symptoms of pressure have disappeared. Some of the English and German surgeons are in the habit of washing out the cavity by causing a stream of warm water to pass from the external meatus through the cavity and Eustachian tubes, into the nose, thoroughly cleaning the parts, and of disinfecting them by means of weak and antiseptic solutions. In young patients, the use of the Eustachian catheter is almost an impossibility, and Politzer has recommended the use of a large india rubber tube, made to fit the nostril, and connected with an air bag. The tube is caused to enter the nostril, and the patient directed to swallow while the bag is pressed upon, thus forcing the air into the upper part of the pharynx, and through the Eustachian tubes into the middle ear. In the inception of acute catarrh, this method is often effective in maintaining the patency of the tubes, and of favoring the exit of fluids, which would otherwise be confined. Politzer's apparatus is also very useful as a means of diagnosis, for when the tubes are in the normal condition, we can easily hear the "thud" caused by the entrance of the air into the cavity as it impinges upon the membrane, which, of course, one fails to detect

when the tubes are closed by plugs of mucus, or the products of inflammation.

Acute aural catarrh may occur idiopathically and disconnected with constitutional diseases, or it may be caused by acute or chronic pharyngitis. When this occurs in older subjects, the subjective symptoms are pain on closing the jaws, or constant pain referable to the mastoid process, or to a point anterior to the anti-tragus, extending to the temple. This pain may increase in extent and intensity, until the patient refers it to the entire base of the skull. Deafness and *tinnitus aurium* are also complained of. There may be difficulty of swallowing. The objective symptoms are; injection of the membrane of the tympanum, especially along the handle of the malleus; the cone of light disappears or is changed in position; and a bulging outward of the membrane may be noticed. On introducing the catheter the air may not enter, and, when forced in, gives a gurgling or bubbling sound, as if obstructed by globules of mucous or pus. The openings of the Eustachian tubes are often very sensitive, and the patient is with difficulty persuaded to allow the use of the catheter. Often, however, the principal symptom is the hardness of hearing; there may be a sensation of fullness and pressure and but little pain. This occurs generally in persons subject to inflammations of the mucous membrane, and in those having suffered with syphilitic inflammations or ulcerations of the base of the tongue and pharynx. The pain accompanying disease of the middle ear is not increased by pulling upon the cartilages of the *meatus auditorius externus*, or by pressure in front of the ear; but is increased by motion of the jaw, swallowing, or rapid movements of the head. When the cases are somewhat advanced, the mastoid process becomes sensitive to any considerable pressure, though no swelling or redness of the part is visible. As the disease advances it will simulate more and more affections of the brain. The pain may become intense, the countenance expressive of intense anxiety, vertigo may occur, and sometimes vomiting. The physician is apt to diagnose meningitis, and often, after such an attack, the patient will consult

the specialist for a nervous deafness, which, he will state, is the result of brain fever, and give his physician as authority. The appearance of the membrane of the tympanum, and other objective symptoms, will furnish a retrospective diagnosis quite satisfactory. We may say that it is hardly likely that an acute purulent inflammation of the mucous membrane could occur, unless the pharynx had also been affected previously or simultaneously.

Most of the subjective symptoms mentioned may be caused by inflammation confined to the membrane of the tympanum (myringitis); but in this affection the hearing power is not apt to be so suddenly destroyed, and when impaired is not improved by forcing air into the cavity through the catheter, as is the case when the hearing power is diminished by mechanical causes due to simple obstruction. We should not forget to mention that febrile symptoms often accompany the disease.

The prognosis depends entirely upon the stage of the disease, and the condition in which the case is found; or, in other words, the damage already done must be considered. If taken in its inception, a judicious local treatment is commonly quite successful. The tendency of the disease is rather to cause thickening and hypertrophy of the mucous surfaces and the membrane of the tympanum, than to produce destruction of tissue or perforation. A repetition of acute attacks or exacerbations of a chronic affection will ultimately cause great impairment of the hearing, and old persons who are deaf will often remember such attacks as having occurred early in life. The constitutional treatment commonly recommended by physicians will often subdue the disease without causing it to entirely disappear, especially if it is connected with pharyngeal or naso-pharyngeal catarrhs, and the inevitable sequel is deafness, which continually increases, for adhesions of the little bones of the middle ear, with the thickened mucous surfaces may be expected; or anchylosis of the connections between the bones may occur. The Eustachian tubes may become positively closed, causing the air in the cavity to be rarified and the *membrana tympani* to be pressed inwards, favoring adhesions between their surfaces and the promontory.

We must, therefore, strive in our treatment to prevent confirmed hypertrophy of the mucous membrane and consequent adhesions between the surfaces in apposition. As will be inferred from the foregoing remarks, our first care in the treatment should be to preserve the patency of the Eustachian tubes. It has been taught by some that the acute inflammatory symptoms should first be subdued before the use of the catheter is attempted; but modern experience abundantly proves that in this manner we may lose valuable time, or even favor the accomplishment of the worst results. While the disease is acute we must naturally expect the entire membrane to be everywhere covered by thickened mucous or a muco-purulent secretion, and if this secretion should fill up the cavity, so as to cause bulging of the membrane externally, we should not wait for the results of catheterism, but practice *paracentesis membranæ tympani* immediately, as is recommended by our best modern aurists.

The catheter should not be neglected, however, even in the most extreme cases, as by its use some of the secretions will yield and pass away, and medicines can be carried to the inflamed surfaces only by its aid. In the early stages, bloodletting by means of leeches, may be practiced, and from four to eight may be applied just anterior to the tragus, or directly under it. Cathartics containing mercury, should be used at the discretion of the physician. The pain, when persistent, may be relieved by the application of warm water, which should be allowed to remain in the external meatus fifteen minutes at a time, and be repeated at intervals. The effect of the warmth may be enhanced by the application externally of pieces of flannel, which have been steeped in hot water. The continued use of poultices, however, should be avoided, as they favor perforation.

There is no special benefit to be derived from the use of calomel and jalap, though it is often recommended. The leeching, the use of diaphoretic medicines, and the warm water will be found sufficiently efficacious as antiphlogistics.

After the violence of the acute inflammation has passed away, the attention of the physician should be exclusively employed with the local treatment of the Eustachian tubes

and cavity of the tympanum. We may here premise that counter-irritation or blisters behind the ears, are found to be actually of much less value in practice, than they might be supposed to possess, if placed upon the nates for the purpose of affecting a gonorrhea. As before intimated, the condition of the pharyngeal mucuos membrane should be carefully observed. This can only be done with the aid of the rhinoscope and laryngoscope to any satisfactory degree. The principles upon which any local disease of a membrane should be treated, are well understood, and the only trouble in treating such diseases of this region, is consequent upon the inability of thoroughly examining the part. The difficulty and its location once recognized, its successful treatment is an easy matter. The blind administration of any remedies, however innocent in themselves, is always reprehensible. A very useful adjunct, if not actually a curative agent, in the treatment of pharyngeal disorders, is the use of common salt (Chloride of Sodium) in solution as a gargle. The solution should be warmed nearly to blood heat, as cold gargles always excite muscular contraction, and the remedy is thus prevented from being thoroughly applied to the diseased surface. The salt and water may be used several times per day, and it will be found advantageous to direct the patient to inhale it through the nostrils, and cause it to pass into the pharnyx through the posterior nares. Weber's or Thudichum's nasal douche is also useful for the purposes of thoroughly cleaning the part, and of applying to it astringent solutions. If the rhinoscope reveals the mouths of the Eustachian tubes to be swollen and red, it is of great advantage to apply a strong solution of nitrate of silver directly to them, by means of a syringe, carrying a long nozzle, perforated at its extremity by a number of minute orifices. The Eustachian tubes should be kept patent by the daily use of the catheter. Instead of using the common india-rubber air bag, the writer has found it extremely advantageous to use a bellows, about the shape and size of a concertina, which gives a steady current of air by a rocking motion of the foot. The bellows is furnished with india-rubber tubes, which connect it with a

vessel, placed over a spirit lamp, the vessel is connected with the catheter by a tube and nozzle; or the tube of the bellows may be connected directly with the catheter when it is used simply as a means of diagnosis. (A description of this instrument, with wood cut, may be found in the Transactions of the Medical Society of the State of California, 1870 and 1871, p. 189.) Medicated fluids or vapors may be injected or forced into the cavity of the tympanum.

As a daily application, the vapor of water is probably the most pleasant and advantageous treatment for the patient. The vapor of solutions of acetic ether or the vapor of iodine, often furnish very satisfactory results. Astringent solutions may be injected through the catheter, by placing a few drops in its open end, and then adjusting the nozzle of the tube connected with the air bag or bellows, and forcing the solution to pass through it. Some patients will bear the injection of fluids better than steam, and experience shows that the physician should strive to comply with the subjective symptoms, and to consider them as indications for treatment. It requires greater skill, however, in the manipulations of the instrument, to make a successful injection of fluids, than to inject vapors or steam. Astringent solutions cannot be used daily, as they produce too much irritation, once in three or four days is found quite sufficient.

The solutions most commonly in use are: Zinc. Sulph. gr. (j—x ad aq. ℥j,) Ammon Chlorid. (gr. x—XL ad ℥j,) Liq. Potassæ, (gtt. v—XL ad ℥j,) Potassii Iodidi, (gr. x—LX ad. ℥j,) and Iodinii, (gr. j—vj,) with Potassii Iodidi (℈j ad ℥j). The following solution, recommended by Allen, seems to combine the advantages of the above mentioned remedies: Ammoniæ Hydrchlor. gr. xx; Potassii Iodid, gr. x; Sodii Chloridi gr. v ad. aquæ Dist. ℥j. In finishing our necessarily imperfect resumé of the more modern methods of treatment of catarrh of the tube and middle ear, we should mention that strictures often found in the Eustachian tube in chronic inflammations, may be dilated mechanically, by whale bone probes, or even by bougies made of *laminaria digitata* as recommended by Schwartze. It should be attempted, however, with great caution, and only by experienced operators.

ART. VIII.—*Case of Sub-acute Meningitis of the Membranes of the Brain and Spinal Cord, connected with Ischæmic Papilla; diagnosed by the ophthalmoscope, and verified by post-mortem examination.* Reported from the Hospital Clinic, by WM. F. SMITH, M.D.

Patrick Henley, *æt.* 45, laborer, admitted to the City and County Hospital, May 1st, 1872, suffering with iritis of the left eye, from specific disease. Under the usual anti-syphilitic treatment, combined with local treatment of the eye, he recovered completely from the pain, adhesions and dimness of vision from which he had suffered for six weeks previously. All traces of the iritis had disappeared five weeks after admission. The nutrition however, was poor, and he continued to be considerably emaciated; the appetite was bad; the bowels quite irregular; the pulse full and strong, and the temperature of the skin normal. June the 4th, partial paralysis of the seventh and fifth pairs of nerves was noticed on the right side of the face, by the loss of expression on this half of the countenance, and an inability of completely closing the right eye. The saliva could not be retained, and was continually dripping from the right corner of the mouth. There was also difficulty of hearing, and the patient complained of constant *tinnitus aurium* on the right side. He also suffered great pain around the base of the skull, but no particularly sensitive points on the surface of the cranium could be detected. On June 6th, patient complained of dimness of the vision of the right eye, and on making an examination with the ophthalmoscope, some congestion of the retinal veins and veins of the papilla could be distinctly seen; the outlines of the papilla were quite distinct, and it was thought to be merely a hyperæmic condition of the retina; there was, however, no retinal hyperæsthesia, but considerable pain around the base of the skull. Iodide of Potash in combination with Carbonate of Ammonia and Tincture of Gentian was now ordered in increasing doses, commencing with about twenty grains per day (of the Iodide).

On June the 11th the headache had increased; he had persistent constipation with occasional vomiting. A large dose of Castor Oil was ordered. The nurse was instructed to arrange and apply electricity positive pole at supra orbital formen and the negative at the *pes anserinus* every morning for twenty minutes; a constant current of some intensity was used, and at the next examination, after an interval of two days, the patient had better control of the muscles of the face, and could close the eye almost entirely. The only additional symptom was chilliness. The appetite remained very poor; had had rather free stools. The remedies as previously described were continued.

June the 17th. The symptoms had not improved since last seen. The dimness of vision had somewhat increased. On making an ophthalmoscopic examination, the condition known as Ischæmic papilla was discovered. This condition was first described by Von Græfe (1) (stauungs papilla). The vitreous humor was comparatively clear, and the fundus of the eye quite distinct; the papilla appeared to be swollen; in fact, its summit was quite distinct, while regarding the eye with the mirror alone, while the space around was indistinct. (Examination by the erect image.) On using a number 3, double convex lens all the striking points became well defined. The borders of the papilla were indistinct, the veins swollen, and the smaller vessels belonging to the nerve proper were much congested, and numerous red points could be seen on the surface of the nerve. The congestion was much greater on the nasal side. Quite a number of new blood vessels were formed in the papilla; in fact, every appearance suggested congestion, confined principally to this part. The veins of the retina were somewhat tortuous, but the arteries were of the normal size. There was evidently no general inflammation of the retina *per se*. The opportunity was taken of explaining to the class (who had followed the history of the case), the supposed cause of this condition. Schwalbe asserts that the arachnoid cavity is continuous with the cavity existing between the sheath of the optic nerve and its neurilemma, and that this cavity is

(1) Arch. f. Ophth. vol. xii.

limited by the *lamina cribrosa*, and is not continuous with the cavity said to exist between the sclerotic and choroid. It is well understood that the sclerotic ring, or opening which admits the optic nerve, is dense and unyielding. These statements as to anatomical points are denied by no one, but they still require confirmation. Supposing them true, however, we can easily understand that any inflammation of the meninges of the brain would fill the arachnoid space and the space between the coverings of the optic nerve, continuous with it, as above stated, to a greater extent than normal; the opening in the sclerotic being closed by the *lamina cribrosa*, would not admit the fluid to the intra-ocular cavity, hence pressure upon the blood vessels emerging from the eye, would be exerted, also upon the venous radicals peculiar to the disc itself. This would account for the congestion of the papilla, also for the fact of the non-implication of the retina, as well as of the choroid and vitreous in the inflammatory or congestive process. As long as the pressure was not sufficient to actually compress the nerve fibers to such an extent that the transmission of nervous impressions is impossible, so long would the subject enjoy immunity from actual blindness. (The case under consideration enjoyed a considerable amount of visual power even to the last.) If pressure should exist upon the track of the nerve within the cranium, as, for instance, in case of tumor exerting direct mechanical pressure, then we should naturally expect to find atrophy of the nerve beyond the point of pressure, which would be evidenced by paleness of the optic discs, or in the first periods of such pressure, possible proliferation of the connective tissue and congestion of the veins belonging to the nerve proper, not interfering, however, with the circulation of the retina itself. In general terms, then, we are lead to associate stauungs papilla with the different forms of meningitis. And optic neuritis properly so-called with atrophy, either to actual pressure upon the track of the nerve somewhere between the eye and the termination of the nerve in the brain, or to general disease or softening of brain and nerve substance. In the latter instance, blindness must be

a prominent symptom. In stauungs papilla blindness must be a secondary symptom. The great amount of papillary congestion not incompatible with considerable visual power, has been remarked by numerous observers. From these considerations then, a diagnosis of sub-acute meningitis was made; also, that the inflammation involved particularly the sheath of the seventh pair of nerves, with possible adhesions of the dura mater to the petrous portion of the temporal bone on the right side, or to periostitis of the petrous portion involving the point of exit of the seventh pair.

July the 29th, all the symptoms were increased, and persistent constipation had become a prominent symptom. The patient had not had a movement of the bowels for nine days previously. After a careful examination of the abdomen no impaction of fæces could be discovered. This constipation having resisted the ordinary cathartics, including enemata, two drops of the Ol. Tiglii were ordered in three pills, and the patient, after the second pill, had rather free evacuations. The pulse did not exceed 100 per minute.

August 5th. The patient had lost the power of distinct articulation and complained of intense pain in the head, and nearly always vomited on taking food. The dimness of vision and difficulty of hearing had increased, but he could still see quite well enough to direct the most of his own movements.

The nurse of the ward stated afterwards that on the evenings of the 6th and 7th the patient became quite delirious, and on the morning of the 8th the right side was almost completely paralyzed, the extremities being cold. On the morning of the 10th of August, at 1 o'clock, he died. At 10 o'clock the *post-mortem* was made with the assistance of two gentlemen of the class in attendance at the hospital, Mr. Martineau and Mr. Kurtz. On removing the calvarium, the dura mater was found thickened and extremely congested in its entire extent, and was adherent to the periosteum in many places, so that it required some force to tear it from the attachments to the bone. There seemed to be no inflammation, swelling or thickening of the periosteum proper,

but the membranes were firmly united by the products of a plastic inflammation, to the surface of the right temporal bone, and it was difficult to isolate or separate the seventh pair from its attachments to the dura mater near the *meatus auditorius internus*. The optic nerves seemed to be normal in structure up to their entrance into the globe. On making a section of an eye, the papilla was found swollen and congested to such an extent that it was raised above the plane of the retina at least one half of a line, or perhaps more than this. The brain substance seemed also to be normal, excepting a portion about the size of a filbert, communicating with the right lateral ventricle by its inner wall and below the island of Reil, encroaching upon the corpus striatum, which was softened and disintegrated. There was a considerable amount of serous effusion in the ventricles. The choroid plexus and vellum interpositum were greatly congested. The corpora quadrigemina were intact. The pituitary body was enlarged and pressed somewhat upon the optic commissure. On opening the spine, the cavity between the membranes of the medulla oblongata and spinal cord was filled by a great effusion of bloody serum. Along the lower two-thirds of the cord a number of hæmorrhages, apparently from the vessels of the external membrane into the arachnoid cavity, had occurred. On making numerous sections of the cord itself, nothing abnormal in its substance could be detected. It appeared to have its natural consistency throughout. No microscopical examinations were made.

With the exception of some old adhesions of the right pleura, and a rather large cicatrix in the right kidney, the examination of the thorax and abdomen offered nothing worthy of remark.

This has been one of the most interesting cases which it has been our fortune to observe. The coloring of the papilla continually reminded us of the frontispiece in Mr. Allbutt's excellent work "On the Use of the Ophthalmoscope." Apparently the only striking difference was in the circulation of the retina. There were three large venous trunks, one of which passed directly upwards and

the other two downwards from the center of the disc in the case here mentioned. We would refer the reader to Mr. Allbutt's work for an excellent chromo of Ischæmic papilla, as well as for an excellent description of the condition.

The partial facial paralysis in our case caused the patient to wear a singular leer in expression not difficult to remember by those who saw him. We often imagined that this expression became ironical, though always covered by strongly drawn lines of intense suffering. The pulse, however, was full and strong, even to within a few hours of death, and because the best and only actual evidence of his sufferings was depicted in his face, we often blamed him with hypochondria.

Editorial.

Trial of Mrs. Elizabeth G. Wharton, on the Charge of Poisoning General W. S. Ketchum.

The April number of the *American Journal of Medical Sciences*, contains an able and very interesting review, by Professor John J. Reese, of the University of Pennsylvania, of the trial of Mrs. E. G. Wharton, at Annapolis, Md., in December and January last, on the charge of poisoning General W. S. Ketchum. Professor Reese was summoned as a medical expert, also as a chemical expert, he being Professor of Medical Jurisprudence and Toxicology in the University of Pennsylvania, and his review is chiefly an examination of the scientific testimony—medical and chemical—offered in the case. The trial has become a *cause celèbre*, as well on account of the high social position of the accused and General Ketchum, as from the interesting developments made during its progress.

Mrs. Wharton, the widow of the late Colonel Wharton, was arrested and tried on a charge of poisoning General Ketchum, an intimate friend of her own and her late husband, Colonel W., in order to avoid payment of a debt due

General K. from her; the poison employed by her, being stated to have been tartar emetic, given on different days, and in sufficient quantities to produce the General's death, which occurred in Baltimore, June 28th, 1871, after an illness of four days. The morning after the death, a post-mortem examination was made by the attending physician, Dr. Williams, assisted by Professors Miles and Chew, of the University of Maryland; the brain being examined in the ordinary way, and the stomach removed for further investigation. There was the usual examination of the other abdominal viscera; but neither the thoracic organs nor the spinal cord and membranes were disturbed. The post-mortem showed some evidences of a moderate congestion of the cerebral lobes, and some slight congestion of the alimentary canal, the other abdominal viscera normal; but the examiners reported that there were no lesions sufficient to account for death. The stomach was placed in the hands of Professor Aikin, of the University of Maryland, for chemical investigation, and at the trial, he testified that he had satisfied himself of the existence of at least twenty grains of tartar emetic in that organ. His reason for believing that there was tartar emetic in the stomach, was that he obtained the "characteristic orange-red precipitate" which antimony gives; and he arrived at the conclusion that the quantity was twenty grains—how? By *guessing*. He did not weigh his first precipitate at all, but just simply estimated its bulk by the eye, and compared it thus with another bulk, of known weight, of a precipitate obtained from a residuum in a nearly empty tumbler found in Mrs. Wharton's house, which tumbler had contained milk punch, that was *suspected* to have been poisoned with tartar emetic. There is chemical analysis! But more than that, the above first precipitate, from whose bulk, the quantity of tartar emetic in the stomach was estimated, (different from the orange-red precipitate obtained at a subsequent step of the process), had never been freed from organic matter, and for aught Prof. Aikin knew, might or might not contain antimony. But the most important and scientifically interesting portion of the trial, was that wherein Prof. McCulloch demon-

strated that the orange-red precipitate, heretofore regarded as distinctively characteristic of sulphide of antimony, is exactly imitated in color by the precipitate obtained from passing sulphuretted hydrogen through an acidulated solution containing tincture of gelseminum (yellow jessamine), without the presence of any antimony at all; and that this precipitate yields, with a single exception, the same subsequent test reactions, as does the antimonial precipitate. This fact was heretofore unknown. Now, the chief medicine administered to General Ketchum by Dr. Williams, during the last illness of the former, was tincture of gelseminum, a dose of forty drops in a little water having been administered about two hours before death, General K. being then moribund. And the appearance of the orange-red precipitate was the grand fact upon which Professor Aikin predicated his testimony, that he was satisfied of the existence of tartar emetic in the stomach. The other known methods of testing for antimony, were neglected by Professor Aikin.

The chemical testimony for the prosecution broke down completely, failing altogether to sustain the allegation of tartar emetic poisoning. The medical testimony did no better, the most that the experts were willing to testify to, being that in their opinion death resulted from non-natural causes, the assemblage of symptoms being quite anomalous —but none of them would swear that these symptoms were those of antimonial poisoning. During the course of the trial, after the first chemical analysis had failed, nothing being proven, the body of General Ketchum was disinterred and the liver and other viscera removed for a second chemical examination. This, however, led to no better result than the other, as the attempt to prove the presence of antimony in the body failed entirely.

On the part of the defense, it was undertaken to be shown that the death resulted from natural causes—that it was in fact due to epidemic cerebro-spinal meningitis of the fulminant form, the disease proving so rapidly fatal that there was not time for the full development of the objective pathological signs, and that the spinal cord, the only organ

not examined, was in fact one of the most important ones to examine, as likely to exhibit characteristic lesions. The truth of this allegation (that the cause of death was epidemic cerebro-spinal meningitis) was rendered so probable, and the prosecution failed so completely to establish their charges, that the jury could not do otherwise than render a verdict of not guilty. The trial lasted from December 4th, 1871, to January 24th, 1872, fifty-two days.

Other interesting points in the case were, the inability of the chemical experts for the State to prove that what they represented in court to be the antimony in its metallic form obtained from the abdominal organs of the deceased was really antimony. The whole amount produced was only from one two-thousandth to one one-thousandth of a grain, divided into twelve portions or spots on the surface of a porcelain lid, each spot about the size of a small pin's head —too minute to identify with any certainty as antimony. And no attempt was made to obtain metallic antimony from the stomach or its contents. Then, there was no examination whatever made of the spinal cord, thus violating the well known rule that "in all medico-legal investigations the examination should be thorough and exhaustive, omitting no portion of the body." Again, Dr. Williams was in attendance upon the deceased and saw him professionally on the last three days of the latter's life, but did not suspect poisoning or use the stomach-pump or any antidote whatever; and it was only an accidental circumstance, the finding of a suspiciously-tasting sediment in the bottom of a tumbler that had contained some milk punch, about an hour before General K.'s death, that seemed to stir up suspicions of poisoning; although the punch had not been compounded for nor tasted by him. But the symptoms of his sickness were anomalous, and his condition not considered dangerous until a very short time before his death, which was somewhat sudden and unexpected. Certainly there were none of the characteristic symptoms of tartar emetic poisoning, only vomiting and some purging on the night of the first and on the second day, easily controlled by remedies (lime-water and creasote); followed on the third day by a drowsy con-

dition, and on the fourth a semi-comatose state, followed by tonic and clonic spasm, in which he died. The sediment in the tumbler had a disagreeable metallic taste, whence the suspicion, in Dr. Williams' mind, of poisoning. This suspicion, communicated to Professor Aikin, was converted into certainty in his mind by his extraordinary analysis of the gastric contents; and being communicated to his colleagues in the University of Maryland, no doubt was very influential in the formation of their conclusions as to the cause of death. Seven out of the twelve experts summoned by the prosecution were colleagues of his in the University. Another rather extraordinary proceeding was the second *post-mortem* examination of the body during the progress of the trial, after the first chemical testimony of the prosecution had broken down: made so secretly that the defense knew nothing about it until confronted with a resulting second chemical analysis; which, however, proved but little more trustworthy than the first.

A large proportion of the popular interest in the trial depended upon testimony relating to circumstances entirely apart from the scientific aspect of the case; and with this we have no concern. But the medical and chemical testimony was certainly of a very interesting and in some respects very unusual character. *

Compensation for Expert Testimony.

It is well known that medical men generally produce a very unsatisfactory impression in courts of law when called upon the witness-stand as experts; yet one would be led to suppose quite the opposite from the willingness so many of them display to ventilate their opinions thus in public. And it is a fact that in the ranks of the regular profession can be easily found "swift witnesses," who though called nominally as experts, having no interest personally or professionally in the success of either of the contestants, yet will

act the part of retainers for the party calling them; and not only bend their opinions, but interpret facts in the interest of the side to which they are friendly. Of course, this is not true of those leading men in the profession who have won their way to fame and high standing through years of experience, and by dint of intellectual superiority; though it may very well be true of those other prominent members whose fame comes from brass, and their standing from judicious advertising. Medical men are too apt to think it a mark of distinction to be subpœnaed to testify in Court. It would be so if only prominent men were thus called upon. But it so generally happens, that what is wanted by lawyers in a case is, not the most intrinsically valuable opinion, but the one which, openly or by implication, most favors their side, that a subpœna is as often an indication of the subserviency or interestedness of the recipient as it is of his skill. And, nowadays, it is not even a desirable advertisement for a physician to have his name published as having been called to testify in such and such a case, for as many men holding diplomas as can be obtained to swear one way, just so many can be had to swear the other; and very many in the community at large, as well as the members of a puzzled jury, being unable to separate the wheat from the chaff, are apt to regard it all as chaff, and the medical profession as, *quoad hoc*, an unreliable and almost useless class in society.

All regular physicians, although experts in the eye of the law, so far as purely professional matters are concerned, are not really so in many cases. The domain of practical and scientific medicine and surgery is so wide in its sphere, and the researches in many of its branches have reached such a degree of minute accuracy, that it is utterly impossible for one average human intellect to embrace them all within its scope. Some of them, as notably, *e. g.* ophthalmic medicine and surgery, or psychological medicine, are to-day of sufficient extent and individuality to engage all the active attention of any one person. It would be manifestly unfair to expect that a general practitioner of medicine, or an alienist, should possess a sufficient amount of practical and

theoretical knowledge of ophthalmology to constitute him an expert in this branch. A great deal of the opprobium which is cast upon medical experts in Courts of law, would cease to be merited, if Judges would exercise their right of satisfying themselves, by taking testimony, if necessary, before admitting an expert to testify that he is really entitled to that character, and rejecting him as a witness unless he can satisfy the Court that he possesses *special skill* in the particular branch of medicine in which he undertakes to give an opinion. As the science and the art of medicine are continually changing and advancing, it is evident that an amount of special knowledge which fifty years ago, or even twenty years ago, would have entitled a physician to be regarded and to testify as an expert, would to-day by no means give him that character. It is, therefore, plain that the Court, before permitting an expert to testify as such, should satisfy itself that his knowledge in his particular branch has kept pace with the advances continually being made. Really, the expert stands, to a certain extent, in the position of *amicus curiæ*, not being called to testify in behalf of this or that party before the Court, so much as to explain, for the benefit of Court or jury, certain facts sworn to in evidence, to place these facts in their proper light, and enable the Court or jury to give them their due relative weight—not, however, to usurp the function of determining the facts of the case. If only those possessed of a high degree of skill in special departments were allowed to testify as experts in those departments, we should hear less contumely heaped upon medical testimony in Courts of law.

There is an indirect method, however, by which the same result might, perhaps, to a certain extent, be reached, and which lies wholly within the power of the medical profession as a body. Of course, when summoned to testify in a court of law, a physician, like any other citizen, is bound to obey the summons, and to testify, as an ordinary witness, to matters of fact within his knowledge. But the moment he is examined as a *skilled witness*, his position is changed. His skill, his knowledge acquired by study and observa-

tion in a special department of life, are his own private property, and no more belong to the State than to any other individual. And he cannot be compelled to place his skilled knowledge at the disposition of the State, without adequate compensation, any more than he can be made to practice his profession gratuitously for the benefit of the public. He would not make a post-mortem examination in a Coroner's case without a fair remuneration, and his professional opinion given in court is of the same character as his personal service in making a post-mortem examination. Both are purely professional acts and demand pay. If all State and County Medical Societies were to make it *incumbent* upon their members to demand a fee for giving testimony as experts, and the fee were fixed at a high figure, as propriety would dictate, there would be two results. In the first place, there would not be so many physicians summoned in every case, as is now commonly done. And in the next, only men of high standing in their special departments would be likely to be called upon, as attorneys would have to depend more upon the reputation and skill, than upon the weight of numbers, of the medical experts summoned. If members of medical societies were to be punishable, *and punished*, by their societies, for failing to charge the fee agreed upon for giving an opinion in court, the character of the testimony thus given and the reputation of the givers, would certainly be enhanced thereby.

It may be said that an expert, just as any other witness, has a perfect right to give his services either to the State or a private individual or a corporation gratuitously, if he so elects; and this would be a sufficient objection to any scheme for regulating this matter by enactment of medical societies, were it not that the propriety and duty of always charging a fee in such cases is distinctly recognized in the Code of Ethics, and medical societies would have as much the right of enforcing any provision for such cases, as they have of making effective any other provision of the Code. It is a matter which comes primarily within the cognizance of the American Medical Association; but, in the absence of any direct action by it, the State and County Societies have the

right, or rather owe themselves and the profession the duty, of making such regulations in the premises as justice and propriety demand. We call the attention of the State Medical Society to this subject, and suggest that it take some action upon it at its meeting in October proximo; and meanwhile local and County medical societies, by considering and discussing the question, would prepare the way for action by the State Society. If this body will give the subject the degree of attention it deserves, and publish an authoritative utterance of its views thereon, the result, it seems to us, cannot fail to have the very desirable effect of raising the reputation of the regular profession in the public estimation, by doing something to remove a stigma that is unfortunately affixed to it. *

Dr. H. A. DuBois, of San Rafael, reports an *extempore* vaccinator devised by himself, as a substitute for Dr. Carroll's instrument, for which he sought in vain at the stores. A piece of gutta percha was taken, of these dimensions: length 2″, breadth ⅓″, thickness ⅛″; this he softened in hot water, and placed four cambric needles, at intervals of one line apart, on the softened end, moulding it with the fingers until cool. The points projected about ½″. This simple instrument can be made in a few seconds, at a cost of as many cents, and will be found to answer all purposes of the original, and have the advantage of economy, in case it is desired, on prophylactic grounds, to employ an instrument but once. In using, they are held in an upright position, and the scratches made in, at least, two directions.

Owing to the absence of Dr. Shorb in the country, we have been unable to obtain the manuscript of the next portion of his article on "Miasmatic Diseases." It will appear, however, in our next number.

Miscellaneous.

Report of State Insane Asylum.

We have received the following report of the Insane Asylum of the State of California:

Number of patients admitted, discharged, died and eloped during the quarter ending June 30th, 1872, and the number under care and treatment at that date.

G. F. SHURTLEFF, M.D., Sup't.

From March 31st, 1872, to July 1st, 1872.	Male.	Female.	Total.
Number of patients March 31st, 1872	784	306	1090
Number of patients admitted	110	40	150
Number under care and treatment	894	346	1240
Number discharged recovered	52	21	73
Number discharged improved	9	3	12
Number died	40	12	52
Number eloped	1	1	2
	102	37	139
Number of patients remaining July 1st, 1872	792	309	1101

New Insane Asylum.

The commissioners appointed to locate the new asylum completed their labors by selecting a situation near Napa City. The law required the approval of the Governor and Secretary of the State Board of Health, before the property could be purchased. The latter official having performed his work, there is no doubt but that the approval of the executive will follow speedily.—ED.

Following, is Dr. Logan's report:

OFFICE OF THE STATE BOARD OF HEALTH,
SACRAMENTO, August 10, 1872.

HIS EXCELLENCY, NEWTON BOOTH—*Dear Sir:*—I have the honor to inform you that, in compliance with your expressed wishes, I visited, on the 8th inst., the site selected by the commissioners for a new asylum for the insane. I passed a great part of the day in riding over and inspecting the

grounds with a view to adaptability for the purpose contemplated. It affords me great satisfaction to be able not only to confirm all that has been so graphically described by the commissioners as to topography, accessibility and other essential requirements, but also to express my surprise and pleasure at the admirable surroundings and picturesque scenery appertaining to the locality in question. Rising gradually, as the land does, at the rate of eighty feet to the mile from the bottom land, where the Vallejo and Calistoga railroad traverses, it affords, at about half a mile from this, its western boundary, an excellent site for the erection of the buildings, embelished by a natural growth of a few oaks, and commanding a panoramic view of the circumjacent mountains and neighboring city of Napa, of exceeding beauty. This latter consideration is of no little importance, it being now the settled opinion of the most able alienists that in order to ameliorate the condition of the insane and to effect the greatest possible number of recoveries, too much thoughtful attention cannot be given to the location of the buildings, so that every advantage may be derived from the views and adjacent scenery. With all due deference to the economic ideas of the commissioners, who have manifested too nice a sense of the extent of the pecuniary responsibility involved in the high trust confided to them, I must here express my regret that provision has been made for the purchase of only eight acres of the mountain land on the eastern line. In my judgment a sufficient quantity of this portion of the tract should have been obtained to encompass the mountain brook, for which a water privilege is to be held, conformably with a bond to be entered into with Nathan Coombs, the proprietor. Pure, bright, sparkling as this water now is, the least animal refuse or organic matter may poison it at its source, and convert it from an hygeian fount into a stygian stream. Apart from the importance therefore, of securing this land while it can be purchased at a reduced price, as I have been assured by Coombs, it must be remembered that, as has been justly laid down by the State Commissioner in Lunacy, in his exhaustive report, "at least half an acre of land for each patient to be accommodated, not only for farming and gardening purposes, but for pleasure and exercise grounds as well," should be provided. Now if the projected buildings are to be constructed for the accommodation of 500 patients, 208 acres would not afford the requisite proportion of ground, as above specified. Without wishing to throw any impediments in the way of the immediate consummation of the project for a much needed branch asylum, but merely offer-

ing these remarks, sir, as suggestive before making your final decision, I proceed to state that not only as regards topographic, but also climatic fitness and salubrity, do I find the site most judiciously selected. In the absence of any continuous series of instrumental proofs of the temperature and other meteorological phenomena of a reliable nature, I have satisfied myself from some fragmentary observations of others, as well as of mine own, that no more equable nor more salubrious climate can be found in any other part of the State north of Santa Barbara, so far as my present knowledge extends. On the day I passed at Napa the thermometer and course and force of the winds were carefully noted by me, and I find that the reading of the former was ten degrees less at Napa City at 2 P. M., in the Revere House, where I then was, than it was here at the same hour of the same day in the Central Pacific Railroad Company's office. During the late "heated term," which was felt more or less everywhere, the comparative maximum temperature of Sacramento and Napa City stands as follows:

MAXIMUM TEMPERATURE.

1872.	Sacramento.	Napa City.	Difference.
August 1st	96°	80°	16°
August 2d	98°	79°	19°
August 3d	99°	75°	24°
August 4th	94°	75°	19
Mean	96.7°	77.2°	19.5°

It will be seen that there was a difference of nearly twenty degrees between the mean maximum temperature here and at Napa City. These observations for the latter place were registered at the Revere House, and are verified by the most respectable citizens.

From some thermometrical observations made for four consecutive months, during the Summer of 1856, by James M. Thompson of Suscol, I am enabled to construct another table for the purpose of comparing the mean Summer temperature of Napa City with that of San Francisco and Sacramento.

MEAN TEMPERATURE.

1856.	May.	June.	July.	August.	Mean.
Sacramento	63°	72°	76°	76°	71.7°
Napa City	59°	63°	60°	63°	61.2°
San Francisco	58°	62°	59°	59°	59.5°

The influence of the trade winds upon the Summer temperature of these three points is here plainly demonstrated. At San Francisco there is no obstacle presented to the force of the chilling oceanic winds, which rush directly through the Golden Gate, with increased momentum, as through a funnel; whereas, at Napa City, such is the conformation of the valley, these winds are broken in violence by the opposing mountain barriers. At Sacramento, distance still further modifies the same winds, which, having a common origin, are deflected in their course by the Contra Costa Mountains and reach us, with much diminished force, as south-southeast winds.

Were it not for the peculiar arrangement of the mountains, Napa City would suffer as severely from the oceanic winds as Vallejo and Benicia. As it is, the climate at Napa City affords such a tempered medium between our interior heat, and the chilling winds of the coast region, as would allow the majority of all the inmates of the asylum, under proper regulations, to take out-of-door exercise, for at least a couple of hours, morning and afternoon, for all seasons, and in warm weather, when suitable shade-trees, arbors, walks and seats are provided, they may beneficially spend one half of their time in the open air.

With regard to the salubrity of the climate and location —a most important alleviative or rather curative agency—I would remark that the testimony of all the resident physicians of Napa City is to the effect of the absolute freedom of the surrounding country from malarial disease. Dr. M. B. Pond, who has written most explicitly on this point, states: "I have resided here six years, engaged in the practice of medicine, and must state that I have not known an epidemic, or even a marked endemic disease to originate here during that period. There is no disease that regularly or even frequently returns at stated periods of the year. Typhoid fevers are scarcely known here—intermittent not at all, except when imported from abroad. Remittent fevers are more frequently met with, but they only occur as sporadic cases, and not at regularly recurring seasons. * * * During the Summer the thermometer ranges from 60° to 72°, with only occasional exceptions, and those lasting only two or three days at a time."

Dr. Stillwagon, who has practiced medicine in Napa City for the last twenty years, not only corroborates all that has just been quoted, but affirms that after careful examination, in his legislative capacity, with Dr. Shurtleff, of the records of the asylum at Stockton, fewer cases of insanity were found sent from Napa City, in proportion to the population, than from any other point in the State. It would seem,

therefore, from *a priori* reasoning, that the best place for treating the disease is where the causes exist in the least intensity.

The whole subject, you will perceive, sir, involves questions of the deepest interest and of the most intricate nature, and should be thoroughly grappled with both by the State and its medical men, if we wish to keep down the number of the insane as small as possible by healing all that can be healed in the curable stage of their disorder.

Regretting that the very limited time of only four days allowed me, after the filing of the report of the commissioners, according to the terms of the act, necessitates so hurried a summary of the facts which I have been able to possess myself of, bearing on this momentous State charity, and the consequently hasty conclusions I have deduced therefrom, I remain very respectfully, your obedient servant,

THOMAS M. LOGAN,
Secretary State Board of Health.

Meeting of the San Francisco Medical Society.
August 13th, 1872.

The President, Dr. I. F. Morse, in the chair. The Secretary read a communication from Dr. Logan, of Sacramento, relative to the effects of the use of dynamite or giant powder upon workmen in mines or other works. Dr. L. requested the Society to make it (dynamite) the subject of discussion, and to report the result. The letter was placed on file and reserved for future consideration.

The Secretary called attention to the fact that Dr. James P. Whitney had been elected by the Society, at a previous meeting, to deliver the annual address in next November.

Dr. Gibbons, Jr., read a paper on "Amputations at the the Knee Joint," including the history of one illustrative case.

Dr. Pigné Dupuytren reported (orally) to the Society an exceedingly rare and interesting case which lately came under his observation. A young man, *æt.* 20, had called last March to consult him in regard to a tumor about the size of a walnut, as hard as wood, situated in the perinæum. There was no pain, or difficulty in urinating or in the act of defæcation. Recommended that he should enter the hospital for surgical treatment. The patient refused and placed himself in the hands of a Chinese doctor. Since then the speaker had lost sight of him until about one month ago, when the patient returned, satisfied that "Celestial" aid was

not as efficacious as the traditions had lead him to believe. The tumor had increased wonderfully in size, and had involved the tissues in its neighborhood; the rectum was surrounded by the hardened mass; the urethra passed through a tunnel left in the substance of the growth; the glans penis was involved; the testicles remained intact, but the scrotum was tightly drawn over them; the tumor had extended over the pubic arch and had involved a portion of the abdominal walls; the upper portion of the right thigh was involved and had increased in size to such an extent that it measured twenty-seven inches in diameter; there was still no difficulty in passing the urine or the fæces. The Doctor had never heard of an analogous case, and was at a loss for a diagnosis, and wished counsel. He hoped that a number of the members would visit the case with him, in the belief that something might be suggested as to the diagnosis and treatment.

The paper on Vaccination and Re-vaccination, by Dr. Jas. P. Whitney, to be found at page 458 of this journal, had been read before the Society at its last meeting, and had been divided into resolutions for adoption by this body, as an expression of the views of the members. The question of adoption had not been decided, and it was referred to the present meeting for discussion; this discussion now being in order.

Dr. Gibbons, Sr., said that, although agreeing in the main with Dr. Whitney's resolutions relative to small-pox, he could not accept all the points made, his objections being, however, principally as to the shape of the paper. He did not like the idea of adopting the entire views of any one man, and such a question should hardly be entertained by this or any other Society. He felt more inclined to enter the paper on the minutes of the Society without adopting the resolutions.

Dr. Holbrook had heard the paper read and believed the opinions there expressed to be the faith of the profession, and he could take exception to only one clause, that referring to certain periods for revaccination.

Dr. Chesley hoped the Society would take some action and express an opinion as a body, as many citizens, as well as municipal authorities, were waiting for an expression from this body on the subject.

Dr. Whitney said he would be sorry to see the paper adopted by the Society, as there was evidently a difference of opinion as to the revaccination of a healthy person after puberty. He knew some would agree with him, and others would not. A gentleman who was present at the last meeting, had objected strongly to some points he had enunciated,

and was to have been present at this meeting for the purpose of extinguishing him (Dr. W.) by the weight of numerous authorities; as this member was not present, he hoped some one else would take up the cudgel. He had written the paper merely to show that revaccination was not necessary oftener than seven years in order to be protective; the most important periods being first and second dentition and puberty.

Dr. Gibbons, Sr., argued that revaccination should be made at intermediate periods, in fact as often as the individual might be exposed to infection. In this point he differed with Dr. Whitney, and he might discover other points of difference afterwards. He thought the Society would stultify itself in adopting unanimously such an entensive paper, as all thinking minds would, on reflection, pick flaws with the opinions of others. The head of a family or a person having professional charge of a certain number, would argue perhaps in this manner: "*If I revaccinate I am certain of the protection of my charge; if I do not, I am running a certain risk; as a matter of prudence, then, I must vaccinate again.*" If persons have been vaccinated with genuine virus, it protects, but can we be certain of this? and in the lack of surety we must revaccinate for perfect protection.

Dr. Whitney again expressed himself as opposed to the adoption of the resolutions, but wished to reply to the argument of Dr. Gibbons, which implies that school children should be revaccinated every two years. He would rather take the chances of small-pox itself than to run the risk of infection by the various poisons which would thus be introduced into the systems of our young persons by such a wholesale use of the quantities of matter obtained from any and every source necessary to fill the demand at the stated periods. As a profession, we should have more faith in the efficacy of Jenner's method. It is abundantly proved that vaccination is protective, and we ought to accept the fact, though we should use care and precaution in the choice and administration of virus. He would not revaccinate after the second dentition when a perfect scar could be shown, and would give a certificate as to proper vaccination to any child presenting such a scar. If revaccination occurs at the age of puberty, it protects the system for the rest of life, at least from the disease, though such a person may have varioloid. Once in seven years is often enough.

The President, Dr. Morse, here left the chair and addressed the society. He could not agree with either Dr. Gibbons or Dr. Whitney as to the adoption of the resolutions. He thought it would be curious indeed if we could not come to a definite conclusion in regard to a point so

well understood by the profession. The function of such a society as ours is to enlighten the public. It is its duty therefore to tell the public whether revaccination is necessary or not. He was alarmed for the discovery of Jenner when he heard the proposition to revaccinnate every two years, a thing directly contrary to the teachings of old established truths, especially when the dangers of the process are so great for so large a number, and thought that the society could not do a better thing than to adopt the paper as the opinion of the body and to publish it and let it go out to the profession and to the public, that we have taken this action for the benefit of society and that we are an active, intelligent body. The resolutions were general ones, and he hoped they would be adopted.

Dr. Gibbons replied, that, in the first place, if the resolutions were to be adopted, each clause should be taken and discussed separately; that in regard to the term of two years as proper for revaccinnation, he had never said anything about it. [Here a member asked Dr. G. if he had not favored the passage of an ordinance at one time before the Board of Supervisors, which provided for the revaccinnation of school children every two years?] Dr. G. maintained that he had not done so before this society, but that those liable to exposure should be revaccinnated, no matter how often such exposure should occur. That, in fact, exposure did not really occur oftener than once in seven years. In this city, during the last twenty-two years an epidemic had occurred three times. As to the quantity of genuine virus obtainable by careful practitioners, a simple demonstration would prove that five hundred babes would produce two thousand healthy scabs, and that as one hundred persons could be vaccinnated by a single scab, therefore two hundred thousand individuals could be vaccinnated from the said five hundred infants. He thought physicians should feel responsible for the protection of their patients.

Dr. Morse called the attention of Dr. G. to the fact that an epidemic of small-pox had occurred four years ago.

Dr. Pigné-Dupuytren gave a verbal history of a case of variola in utero which had come under his observation during an epidemic. The mother was not affected. She had been vaccinnated in youth.

Some general discussion followed and the Secretary was directed to read the resolutions *seriatim*. After each one had been voted upon and adopted, a vote was taken on the adoption of the resolutions as a whole, which was carried.

Dr. Gibbons, Sr., again took the floor, and desired his protest, as to the adoption of the resolutions as a whole and as to the adoption of the particular ones he had referred to

in his previous remarks, to be entered upon the minutes of the society. This being granted, Drs. Chesley, Baldwin, Gibbons, Jr., and one other member joined in the protest.

Adjourned.

Proceedings of the Alameda County Medical Association.

OAKLAND, August 5th, 1872.

Present—Dr. Van Wyck, President; Drs. Babcock, Bibb, Carr, Cushing, Fish, Fox, Gibbons, Holmes, Kittredge, Pinkerton.

The minutes of the last meeting were read and approved. The Board of Censors, having reported favorably on the application of Edward Parson, M.D., University of London, 1863, that gentleman was, on ballot, unanimously elected to membership. Dr. Kittredge, from the Standing Committee on Statistics, reported a scheme for the guidance of the sub-committee on Hygiene. Dr. Pinkerton, chairman of the Committee on Diseases, made the first report, including the months of May and June, as follows:

Deaths reported for	May.	June.	Totals.
Zymotic.			
Miasmatic	1	4	5
Dietetic	.....	2	2—7
Constitutional.			
Diathetic	1	.....	1
Tubercular	.....	3	3—4
Local.			
Nervous	2	.....	2
Circulatory	.....	2	2
Respiratory	1	2	3
Digestive	1	2	3—10
Developmental.			
Children	.....	2	2
Aged	1	.....	1—3
Violence, Accident and Negligence	1	1	2
Suicide	1	.....	1—3
Not classified	2	.....	—2
Total	11	18	29

Of the eleven deaths of May, five are certified to by irregular practitioners, and of the eighteen for June, nine are certified to by irregulars.

The Secretary read a communication from Dr. Logan, Secretary State Board of Health, on "The use of Dynamite or Giant Powder, its reputed injurious effects on the health of

miners and others exposed to its fumes," and requesting the views of the members of the Association thereupon. After considerable discussion, the Secretary was instructed to reply that, as this was not a mining county, the members had no practical personal knowledge on the subject, and would suggest that medical men, resident in mining districts, would be the proper authorities whence to draw information on a subject which must involve observation through more than one generation.

Dr. Holmes reported a case of typhoid fever; death occurring on the twentiethday. On the fifteenth day he passed quantity of *distoma lanceolatum*. This parasite is rarely found in the human subject, its presence being only known by an autopsy, its situation in the gall-bladder.

After some discussion on the subject, the Secretary read a paper, from Dr. Bamford, on the "Use of Veratrum Viride in inflammations, *when* and *how* it should be used," etc. It was an able paper and gave rise to considerable debate.

Dr. Gibbons presented a dissection of the excretory glands of the *Mephitis Occidentalis*, or California Skunk. The dissection proved that the animal cannot emit its odor unless its tail lies flat on the back, as that movement produces tension of the muscles which press on the excretory glands. These glands are contained in two sacks situated, one on either side, containing collectively about one half ounce of oil. The Doctor experimented on this oil to remove its odor, and found that while readily dissolving in ether, that did not suffice: it was necessary to first saponify it with caustic potash, then a solution of carbolic acid readily deodorized it.

Dr. Fox donated to the museum a sequestrum from a tibia of a child aged twelve.

Drs. Carr and Trenor were appointed to prepare papers for the next meeting.

After the transaction of minor business, the Association adjourned to the 2d of September.

Report of Committee on the Cultivation of the Cinchona-Tree in the United States.

We have received from Dr. Logan, the following Committee report, presented to the American Medical Association, at its last session. It is to be regretted that so long a time must elapse before the subject can be again brought up before our Legislature:

"The Committee appointed by the American Medical Association, to memorialize Congress on the cultivation of the Cinchona-tree in the United States, beg leave to present the following report:

"The memorial which was prepared by your Committee, and endorsed by the Association, was duly presented in Congress, and referred to the Committee on Agriculture. No farther action appears, however, to have been taken upon it.

"Your Committee, however, has not been idle, as will be seen by the following facts.

"A committee was appointed by the Medical Society of the State of California, at their annual meeting in 1870, "to address the Legislature of California, and petition that honorable body to appropriate suitable lands for the purpose. Drs. A. B. Stout and T. M. Logan were the committee selected." These gentlemen prepared a bill, which was introduced near the close of the last session of the Legislature. Owing to the fact that this bill was introduced so late in the session, it was not passed. A very favorable feeling was expressed towards the matter, however, and your Committee have no doubt that a similar bill will be introduced, and the lands granted.

"In the meantime, the chairman of your Committee had opened a correspondence with the Hon. Mr. Watt, Commissioner of Agriculture. Mr. Watt gave assurance of his cordial cooperation in this matter, and has promised to supply whatever seeds may be desired.

"A correspondence has also been carried on between the Commissioner of Agriculture, the State Medical Sociey of California, and a certain F. A. C. Grebner, who has had fourteen years' experience in the cultivation of this plant in Java, and who is willing to assist in the introduction of the plant into this country.

"In accordance with these facts, a second memorial has been prepared for petition to Congress, which is herewith presented.

"Bearing in mind the fact, that, although Dr. Royle drew the attention of the British Government to the importance of this matter, and earnestly urged their action as early as 1839, it was not until twenty years thereafter that the first step was taken in what has proved to be so successful an undertaking as the cultivation of Cinchona in India; and knowing that this matter is already receiving favor here, your Committee feel that their efforts have not been entirely useless.

"Your Committee would further suggest, that, since Dr. Antisell has been appointed upon a commission which will

compel his absence from the United States for some years, and will prevent his coöperation with the other members of the Committee, the name of Dr. A. B. Stout, of San Francisco, be substituted for his, and that the Committee as thus constituted be continued.

TO THE HONORABLE SENATE AND HOUSE OF REPRESENTATIVES OF THE UNITED STATES OF AMERICA:

"WHEREAS, The American Medical Association, composed of delegates appointed from the State, County, and local Medical Societies throughout the whole United States, constituting therefore the highest medical authority of the country, presented to Congress nearly two years ago, a memorial, in which they asked Congress for the appointment of a commission of scientific men, to determine certain points in connection with the cultivation of the Cinchona-tree in the United States:

"AND WHEREAS, Some of these points have already been determined by other experiments in this direction, and the Department of Agriculture is prepared to furnish any needed quantity of the seeds:

"AND WHEREAS, The cultivation of this tree has already been successfully tried on a large scale by the English and the Dutch governments, and the American Medical Association believe that its cultivation by this government would be productive of a very considerable revenue, provided that the proper soil and climatic conditions exist in the United States, which conditions the Committee of the Association are convinced do exist:

"*Therefore*, The American Medical Association would, through its Committee, again respectfully ask the appointment by Congress, of a commission of scientific men "to determine what portion, if any, of the public domain of the United States will produce Cinchona, and which may be set apart for the purpose."

For the Committee,

LEMUEL J. DEAL, M.D., *Chairman*,
1103 Vine Street, Philadelphia.
THOMAS M. LOGAN, M.D.,
Sacramento.

By order of the Association,

DAVID W. YANDELL, M.D., *President*.
WM. B. ATKINSON, *Permanent Secretary*."

This is a matter of great importance to the profession of this State, as our locality must, of necessity, be the one selected for the experiment.

MONTHLY REPORT OF DEATHS IN THE CITY OF SAN FRAN-

By C. M. BATES, M.D., Health Officer. *No. of Deaths corresponding*

CAUSE OF DEATH.	Total	AGES.																SEX.	
		Under 1 year	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	Over 100	Unknown	Male	Female
I. ZYMOTIC.																			
Variola	15									4								9	2
Whooping Cough	3	2		1															3
Fever, Enteric or Typhoid	14	2	1			2	2	3	1	2	1							4	7
Dysentery	7	2	1					1	1	2								5	2
Diarrhœa	8	4	1						1	1	1							3	5
Cholera Infantum	29	26	3															14	15
Other diseases of this class	20	2		7	1		1	3	3	2	1							10	10
II. CONSTITUTIONAL.																			
Cancer Undefined	2							1	1									2	
Cancer of Stomach	1									1								1	
Cancer of Liver	1										1							1	
III. TUBERCULAR.																			
Phthisis Pulmonalis	26						1	9	6	5	4	1						22	4
Hydrocephalus	4	2	1	1														3	1
IV. LOCAL.																			
Congestion of Brain	8	4	1															4	4
Meningitis	18	3	7	1	1			1	1	4								8	10
Cerebritis	4	2		1						1								2	2
Compression of the Brain	3							1	1			1						3	
Apoplexy	13								5	3	2	1		1			1	9	4
Paralysis—general	3						1					2						3	
Epilepsy	2						1		1									2	
Other diseases of this class	6	2				1		1			2							5	1
V. CIRCULATORY SYSTEM.																			
Aneurism of the Aorta	6							3	3									5	
Anæmia	2	1						1											2
Hyperatrophy of the Heart	3									1	2							2	1
Valvular Disease of Heart	3									1	1		1					2	1
Dropsy	8								3	2	3							6	2
Heart Disease, undefined	6								2	3		1						4	2
Other diseases of this class	10	1			2			3	3	1								8	2
VI. RESPIRATORY SYSTEM.																			
Laryngitis	1										1							1	
Hydrothorax	1							1											1
Congestion of the Lungs	4	1								1	1			1				4	
Pneumonia	28	5	2	1			2	4	2	5	5	1			1			21	7
Asthma	2									1								1	1
Hæmoptysis	2							1		1								2	
Angina Pectoris	2	1									1							2	
Other diseases of this class	1											1							1
VII. DIGESTIVE SYSTEM.																			
Gastritis	5	4						1										4	1
Enteritis	19	12					2		4	1								11	8
Peritonitis	4							1	2		1							3	1
Hepatitis	5			1				1		2	1							5	
Liver Disease	2									2								2	
Other diseases of this class	10									4	3	3						7	3
VIII. URINARY SYSTEM.																			
Nephritis	2								1									1	
Bright's Disease	5								1	3	1							5	
Other diseases of this class	3									1	2							3	
IX. LOCOMOTORY SYSTEM.																			
Joint Disease—Hip	2							1										2	
X. INTEGUMENTARY SYSTEM.																			
Abscess Psoas	1								1									1	
XI. DEVELOPMENTAL.—CHILDREN.																			
Premature Birth	2	2																1	1
Cyanosis	2	2																	2
Convulsions.—Infantile	15	9	2	4														4	4
Teething	5	4	1															4	1
Other diseases of this class	3			1														1	2
XII. OLD AGE	8												6	2				3	5
XIII. NUTRITION.																			
Atrophy	16	11	1	2	1			1										10	6
Inanition	12	11	1	1														6	6
Alcoholism	3							1		2								3	
Other diseases of this class	6	3	1	3				3										4	2
XIV. ACCIDENTAL	27		1	4		1		5	3	7	2		1					22	5
Murder and Manslaughter	3								1		2							2	1
XV. SUICIDE	2								1		1							2	
XVI. CAUSES NOT SPECIFIED OR ILL DEFINED	35	4					3	11	7	4	4	2						27	8
TOTALS	514	2[illegible]	25	29	10	5	14	71	77	79	46	15	11	3			1	246	2[illegible]
XVII. STILL BORN																		10	6
XVIII. BIRTHS REGISTERED																		[illegible]	[illegible]

CISCO, CALIFORNIA, FOR THE MONTHS OF JUNE & JULY, 1872.

Month of 1868, 275 & 346; 1869, 293 & 296; 1870, 281 & 298; 1871, 221 & 230.

RACE.			WARD.													Public Institutions..	Casualties...	Suicides...	NATIVITIES.			
Caucasian...	Mongolian..	African....	1st Ward..	2d Ward...	3d Ward...	4th Ward...	5th Ward...	6th Ward...	7th Ward...	8th Ward...	9th Ward...	10th Ward...	11th Ward...	12th Ward..					F'rgnCo'ntr's	Atlantic U. S..	Pacific U. S...	Unascertained
11	1	1	1				1	1			1	1	1	2					8	5	2	
3											1	1	1								3	
13		1	1		2		1	1	2		3	2	1	1					4	6	4	
7					2				2					3					3	1	3	
8				1		2					4	1							2	1	5	
29				6			1			2	9	5	6								29	
9			1	4	1	2		1	1		4	2	1	3					5	5	10	
2				1										1					2			
1														1					1			
1														1					1			
22	2	2	2			3		1	1	1	1	4	1	1	11				20	5	1	
4									1				2	1							4	
7	1			1		1		1	1		1	1	1	1					2	1	5	
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REMARKS.—There is nothing worthy of any special notice in the two months report. The aggregate mortality is less than in the months of May and April, but an increase on the corresponding months of last year, which was unusually light. It will be observed by the first-named disease under the class of zymotic diseases, that we have had four deaths from variola. On the 17th day of last May we had one case of variola; on the 22d, three cases, and on the 31st two cases, all of whom arrived in this city from three to five days previously, *via* Central Pacific Railroad, before any symptom of small pox manifested itself. All of said patients state that a passenger came aboard the cars while on their way here. All but one were of rather a mild form of variola diserata, and walked about the city until the disease was fully developed and easily recognized, before they were discovered and placed in the Small-Pox hospital. We had no further report of cases until June 24th, at which time six cases were reported; on the 26th, six cases; on the 27th, seven cases; and up to July the 16th we have had on an average, three to four cases reported daily, since which time we have had only thirteen cases reported, making a total of seventy-six cases reported since May the 17th, and seventy-two of them were reported since June the 24th. It is proper to state that all those reported since June the 24th, except two, were residents of this city, and have not been out of its limits within so recent a period as to render it possible that the disease was contracted outside the city; and the two exceptional cases had been sufficiently long in the city to have rendered it impossible for them to have contracted the disease in any other place. Of this number about twenty cases were of the confluent form of the disease; four of those were of the *variola nigra* or black form of small pox, from the extravasation of serum containing hematin, resembling the appearance found in purpura. Fifteen cases were of the distinct form of the disease, and the remaining number were of the varioloid type. The total number of deaths to end of July is fifteen. These cases were scattered all over the city, from North Beach to South Park, and from Drum street to the Presidio, and in nearly every public hospital in the city. We have had only two cases reported in the past ten days, from which we may reasonably infer that the disease is stayed in its course, until we get a fresh supply by railroad.

Book Reviews.

LECTURES ON THE PRINCIPLES AND PRACTICE OF PHYSIC. By SIR THOS. WATSON, Bart., M. D., F. R. S. 2 vols., *pp.* 1872. Philadelphia, H. C. Lea; San Francisco, A. Roman & Co.

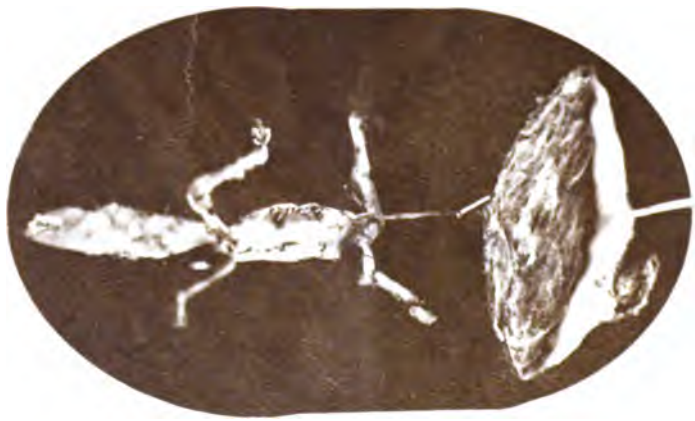
These volumes are from the fifth revised and enlarged English edition, and are brought down to September last. They are edited by Dr. H. Hartshorne, of the University of Pennsylvania, who speaks of the revision of the lectures as a work "*con amore*:" certainly he has succeeded in making it a most entertaining book for both student and practitioner. In only one instance has the editor seen fit to differ materially from the author, and that is in regard to cholera. It would far exceed the limits of our entire monthly to attempt to exhaustively review our author, nor is it necessary to attempt it, for the work was long ago established as one of prime value, and always to be relied on as an authority. The lectures were originally delivered to students in 1836–'37, and on their first appearance did not pretend to be issued as a complete and exhaustive treatise on the practice of medicine, but their frequent and careful revision has changed their character, if change was indeed necessary, so that now we have them collected as a standard for our guidance. On their first issue, Dr. Condie was editor, and we are happy to see his additions preserved by the present able successor. At the end of the second volume the author says:

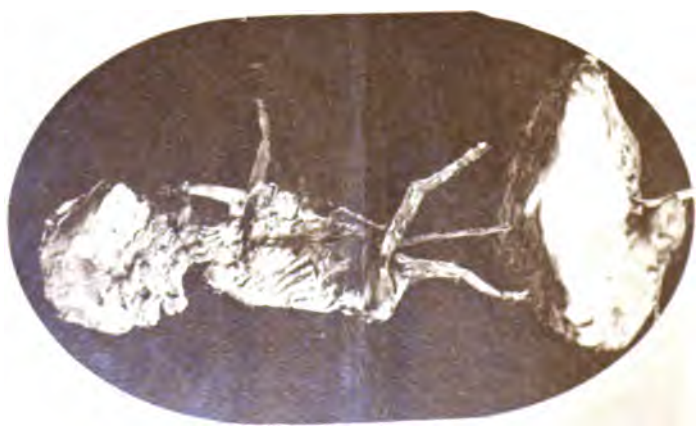
"Considering the rapid advance of medical science during the last fourteen years, the present edition would be worthless if it did not differ much from the last. Working with many interruptions, and the slowness of old age, there are a few things in the first of these volumes which would have been differently put, if they had not been already printed while I was preparing the second. I will mention one only. Had I known what I now know about the effects of chloral in procuring sleep, I should have recommended it as preferable to opium in the treatment of delirium tremens."

A TREATISE ON THE DISEASES OF INFANCY AND CHILDHOOD. By J. LEWIS SMITH, M. D. *pp.* 741. Philadelphia, Henry C. Lea, 1872; San Francisco, A. Roman & Co.

Among the multiplicity of works on the diseases and modifications of disease peculiar to infancy and childhood, the one having the above title stands out prominently as entitled to more than ordinary consideration and esteem. No matter at what page we open it, something of interest always strikes the eye and carries the reader along to the end of the chapter, interested and instructed. The language employed by Dr. Smith is always clear, his style easy and natural, and his descriptions full and accurate. But what chiefly distinguishes his book is the strong common sense and sound judgment displayed in it. The work is for this reason an eminently practical one, and satisfactory to the physician for reference, or as a text-book for the student of medicine. The conclusions arrived at and the doctrines inculcated are the result of an extended experience and observation, never the product of any pet theories or hobbies; yet the author is well up to the advanced and progressing science of the day in all that relates to his special department of medicine. He has made his book an original one in some important features, by relying for his material more upon his own clinical observation and the inspection of the cadaver, than upon the opinions and observations of other writers; thereby very considerably enhancing the value of the treatise.

The type is large and clear, paper good, and binding such as will stand usage. There are also those two great comforts in a work of reference, a full table of contents and a good index. We are glad to be able to recommend the work as one of sterling merit, and have no doubt of its favorable reception by the profession. *





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the flaps much contused, but still firmly attached for a space of some four inches on the inner side of the arm. Not knowing at the time that the flap had been mangled between two wheels, until the machinery could be stopped, as I after-

THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR SEPTEMBER, 1872.

Surgery.

ART. I.—*San Rafael Clinique.—Contused Wound of the Elbow, followed by Sloughing and Erysipelas.—Treatment Adopted.—Recovery.*

June 14th, 1871, Mr. W., *aet.* 32, was brought to the office, having a large flesh wound of the elbow. He was employed in a saw-mill some fifteen miles away, and in oiling some portion of the machinery, his elbow had been caught between two cog-wheels, and the skin and cellular tissue stripped from the arm and forearm, leaving a wound over nine inches in length by about ten inches in width (measured over the elbow joint). He fortunately had presence of mind sufficient to seize hold of some wood work with the other hand, and to withdraw the elbow with the flap of skin still adhering to its inner side, from between the revolving wheels. A careful examination showed that though the olecranon process was splintered and considerably bruised, yet the joint was intact, and the radial artery was uninjured. The fascia had been partly torn away, and the flaps much contused, but still firmly attached for a space of some four inches on the inner side of the arm. Not knowing at the time that the flap had been mangled between two wheels, until the machinery could be stopped, as I after-

wards found to be the case, I too hastily resolved to endeavor to save it. Accordingly, after being thoroughly cleansed, and the wound dressed with glycerine, containing one fortieth part of carbolic acid, it was attached to the sides by long accupressure needles, with an elastic band over each, in the form of a figure of eight. The object was to keep the flap as nearly as possible in apposition, but owing to the situation of the wound it would be almost impossible to keep the parts in perfect quietude. The elastic bands, therefore, I hoped would allow of slight motion. When thus adjusted, about two thirds of the wound was covered. No endeavor was made to attach the flap to the outer side, nor was any stretching of it resorted to. Cotton-wool, well soaked in glycerine and carbolic acid of the above mentioned strength, was next applied, and over this dry cotton. A firm coat of the whole was readily made by the use of a thin gauze roller, well rubbed in dry plaster previous to winding—putting this bandage in water first, and then applying it to the arm along its length, and overlapping the folds to a thickness of some five or six layers; and over all a light circular bandage. In the course of ten or fifteen minutes, a firm case was thus formed, giving support to the dressings, and making gentle pressure over the whole wound. June 15th. He had suffered much during the night, though he had had a grain of morphia hypodermically. I now, for the first time learned the exact manner in which the injury had occurred, and was convinced of the error committed in trying to save the flap, as it was hardly possible that vitality remained in it, at least not sufficient for purposes of repairs. The second day the dressings were removed and the flap found to be discolored and with a gangrenous odor. Some of the needles were removed, and a portion of the flap cut away. A poultice of flaxseed, and charcoal containing carbolic acid was applied and retained for several days. All dead tissue was removed daily, and as soon as this was done, a return was made to the carbolic acid and cotton-wool dressing. A small portion of skin was thus saved, though nearly the entire flap had sloughed. The fragments of the olecranon process could now be removed, and the bone remaining was covered with healthy granulations. After a few days, I tried grafting small bits of skin upon this extensive wound, but though they remained and several of them seemed to take root, so to speak, and then to melt away, I did not notice that they aided greatly in *skin forming*, and this I attributed to a hard and indurated condition of the granulations. At any rate, after three failures I abandoned the enterprise, more especially as I had promised

my patient to supply the skin necessary, and I had no more to spare for this experiment.

Would this wound be covered if left to itself and the parts kept quiet? I felt convinced that it would, but was afraid of a straightened condition of the arm resulting from too small a cicatrix, and therefore determined to allow the joint to be used while the endeavor was made to keep the granulations in a healthy condition. Everything progressed satisfactorily, and about the middle of July, after being five weeks under treatment, he was allowed to return home. The wound had gradually contracted so that it was not more than one third the size that it was originally.

During these five weeks it had passed through many stages—at least three slight attacks of erysipelas had supervened, while all varieties of granulations could be observed frequently, at the same time, in the different parts of the wound. Like an old ulcer it sympathized with the general health. The wound was kept cleansed by a strong jet of water; thin sheets of lead were placed over its edges, while pure carbolic acid was brushed lightly over the horny granulations; at other times slightly stimulating applications were used, according to the nature of the wound; the cotton-wool was applied inside a well moulded plaster. The patient's general health at the time of the accident was good, and his habits also were correct. A considerable fever, rapid pulse, dry tongue and skin, were observed for the first few days—which symptoms all passed away with the use of anodynes and saline aperients. The patient, after the first week, was put on the use of the Tinct. Ferri Chloridi, and had a nourishing diet, with porter, allowed him. The attacks of erysipelas were treated by forty drop doses of the Iron every few hours—according to its severity, and the effect of the mercurials was seen in the changed condition of the wound.

March 30th, 1872. Mr. W. presented himself to-day—nine and a half months since the accident. The wound is healed with the exception of a space about one inch in diameter immediately over the olecranon process. The cicatrix is smooth and healthy, the granulations in the wound are small and the edges thin. The reparative process is evidently only delayed by the constant motion of the joints, the patient telling me that he has been working in in the mill for the last six months. He was directed to keep the arm three quarters extended by means of a splint on its inner side, and to continue the carbolic acid lotion.

I have seen it stated—that mercurials, and especially calomel, have great value in influencing the course of an old ulcer. In cases of extensive burns I have seen it act very favorably, and have often resorted to it in order to change the character of the granulations and to promote cicatrization. In cases of ulceration of the bowels and in that form of diarrhœa or dysentery resulting from bad food scanty in quantity, and from exposure, surprising effects have been produced by half grain doses of blue mass every hour or two until the system has been brought under its influence to a slight extent. One case of this kind is recalled with much pleasure. A boy, *æt.* 16, greatly emaciated from prolonged confinement at Andersonville, was brought to the hospital at Philadelphia. He had had nourishing food, stimulants, a variety of tonics given him, but with no effect. He was not able to appropriate them. The case was regarded as one in which attention must be directed in the first instance to the assimilatory system, and accordingly he was put under the influence of blue mass combined with a small quantity of Dover's powders. In a few weeks he improved in both strength and flesh under the influence of small doses of iron and other tonics, before valueless, and soon was able to digest rare beef and other nourishing food. The quantity of blue mass employed did not exceed ten grains, and was used in minute doses with a view of obtaining its constitutional effects. It is needless to say that the use of mercurials in this class of cases requires the closest watching, but, like the knife of the surgeon, it is capable of effecting great good, or of doing much harm, according as it is used.

ART. II.—*Can a Bone be Bent?* By H. B. DAVISON, M.D., San Francisco.

By the above question a partial or interperiosteal fracture is not alluded to, but such cases as from unskillful

treatment, or from want of proper care on the part of the patient in following the surgeon's instructions, deformity of the long bones has resulted in a deflection from the normal line.

The following case will best illustrate my meaning. I was called to see a girl, aged 13, who had sustained a complete fracture of the radius and ulna in the lower third. There was considerable swelling and distortion, but with the aid of an anæsthetic, and by careful manipulation the ends of the fractured bones were placed in perfect apposition. Anterior and posterior splints were applied with the usual bandages. While the dressings were being applied, the family physician—with whom I was not on friendly terms—arrived, but he declined taking charge of the case, on the mother's request that I should continue the treatment. The patient lived some four miles from my office, on visiting it the next day, with the permanent apparatus, I found the arm in proper shape, swelling much subsided and with but little suffering.

I continued to visit the patient occasionally, everything progressed favorably, as far as I could judge, and at the end of six weeks the splints were removed to find, to my great surprise, as well as mortification, the arm bent more than *two inches* from its normal position! On placing it on a plain surface, a large mouse could walk under the arch formed. On making inquiries from the domestic in the family, I was told that the girl had fallen several times and that she had been in the habit of carrying a small milk pail in the hand of the injured arm. Here was the cause of the deformity. The child's father had now returned from an absence, and on consulting with the family physician, before referred to, was informed by him that the only recourse was to refracture the bones and proceed de novo. Not desiring to comply with advice so seemingly heroic, I was directed to assume control again. The arm was measured from the elbow to the wrist, and a splint of the requisite length and of about three inches in width padded on one side, with two small straps and buckles for securing it at the extremities, was constructed. A strap of leather one inch wide,

was secured by one end to the under side of the splint and the other end passed over a small steel roller held in check, by a small ratchet wheel, at one end of said splint.

This apparatus was adjusted to the arm by securing the straps at elbow and wrist; the long under strap was then brought over the top of the callus (a small pad being placed intermediate) and the wheel turned until slight pressure was made. For a few days, and until the new straps were fully stretched and the irritation had subsided, but slight tension was made. Subsequently, morning and night, for about one month the straps was tightened, only removing the splint long enough to cleanse the pad.

There was but little inflammation and not much suffering. The instructions were to continue the pressure for a few weeks longer to ensure complete succes; as it was, the result was truly gratifying; the curvature was nearly corrected, and it required a close inspection to detect the seat of fracture.

It is not claimed that this treatment would be as complete a success in all cases. The patient had youth and health in her favor, but with recent fractures, at all ages it is believed that similar deformities may be materially lessened.

Institutes and Practice of Medicine.

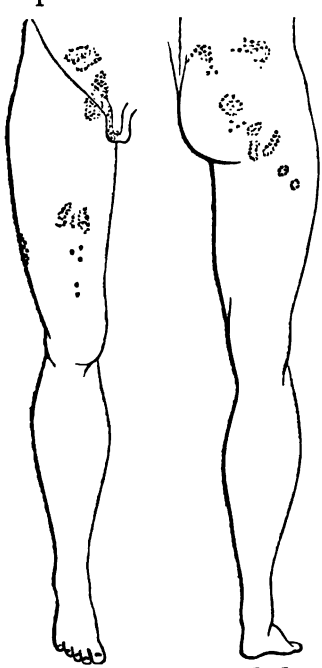
ART. III.—*A Case of Herpes Zoster, with Comments on the Pathology of this Disease.* By V. HAVARD, M.D., U.S.A., Camp Grant, A. T.

William I., aged 38, of very nervous temperament, inherited from his mother's side. His mother, two sisters and two brothers died of consumption, but he himself had sound lungs; another brother is suffering with asthma; the case thus strikingly exhibiting the relationship, direct or indirect insisted upon by some authors, of neuralgia, consumption and asthma.

This patient has been very nervous from his youth. He first felt the pangs of trifacial neuralgia in 1862, and afterwards suffered with it in paroxysms of increasing severity, till 1864, when it became much milder, and only of occasional occurrence; but even to-day exposure to cold is apt to be followed by a few twinges across the temples. Inflammatory rheumatism occurred in 1863 and 1864; and syphilis in 1868, for which latter he was duly salivated.

Although this man is not an habitual drinker, yet during the last few years has at times indulged in a lasting spree, for which his neuralgic pains should, to some extent, be held responsible. It was also with the hope to mitigate his sufferings that he began to eat opium in 1866. This pernicious habit was continued one year, and then broken off.

All these depressing influences have told on his mind, probably constitutionally weak and predisposed to neuroses; he is now a prey to a mild type of melancholia, which it is impossible for him "to shake off."



The herpetic eruption represented in the diagram, began to break out, without any premonitory symptoms, on July 29th. It was strictly confined to the right half of the body, and of this, to those parts supplied from the lumbar and sacral plexus. The vesicles first made their appearance in the groin, above and below Poupart's ligament, and in the lumbar region; then, on the right side of the scrotum and in the corresponding nates; continuing their march downwards, they, a few days later, invaded the thigh, especially in front and laterally, the lowest vesicles being about two inches above the knee. Their eruption, unpreceded by any pain, was attended with a sharp pricking sensation as if each growing vesicle was a needle cutting its way out.

Pains of two kind followed the development of the vesicular patches: one kind, severe and shooting, extended from hip to knee, exaggerated near the spine; the other, cutting and stinging, evidently more closely connected with the evolution of the vesicles, running along the groin towards the penis. These pains, although seldom altogether absent, were distinctly remittent. There was a great deal of tenderness in the groin, along the thigh and specially in the lumbar region on and close to the spine. He was discharged on August 12, with still lingering dull pain about the hip, and tenderness over the lumbar vertebræ. Those parts covered by the exanthem, are frequently bathed in profuse sweat, no doubt the result of defective ennervation.

The topography of the eruption shows the nerves affected by the peculiar neuroses productive of herpes zoster. His hypogastric, ilio-inguinal, anterior crural, external cutaneous, small sciatic, etc., in fact most, if not all of the superficial branches of the lumbar and sacral plexus, were involved. This circumstance would point to the interesting conclusion, that in this case, if not in all cases of herpes zoster, the primary lesion is central and probably seated in the ganglia of the posterior root of the nerves of the affected side. (Anstie's theory in neuralgia, of which zoster is only a complication.)

There seems to be a rheumatic element in this case, that should not be overlooked. The lingering and diffuse tenderness over the lower lumbar vertebræ and in the neighboring region, I am inclined to attribute to rheumatism affecting the ligaments of the spinal column and involving the sheaths of the spinal nerve roots. This presumption derives force from the fact that the severest fits of neuralgia were experienced at the time this patient was also suffering from acute rheumatism.

The different links of the pathological chain, in this case, would therefore be as follows:

Predisposing cause.—Strong, inherent liability to neuroses, as evidenced by the family history.

Exciting cause.—Rheumatism of spinal ligaments and nerve sheaths.

Result.—Graphic disturbance in ganglia of posterior roots, producing neuralgia and herpetic eruption.

The treatment consisted in the administrations of cod-liver oil and Fowler's solution; externally, in the brushing of collodion over the vesicles, thus preventing excoriation and hastening dessication.

ART. IV.—*Veratrum Viride in Inflammatory Affections.* By WM. BAMFORD, M. D., Brooklyn, Cal.

No small part of the duties incumbent on every physician consists in endeavoring either to subdue inflammation already existing, or to remove the causes which are threatening to produce it.

My present purpose is to bring to the notice of the readers of the LANCET the merits of this agent as a controller of the heart's action—a restrainer or modifier of the *vis a tergo.*

This peculiar power of veratrum has again and again been asserted by those physicians who have used it in their own practice, and become familiar with its effects, yet I apprehend that a somewhat large portion of the profession have never learned to use it successfully, having failed either in their own first attempts, or being deterred from its use by the failures of others.

While the controlling power of this agent over the heart's action is acknowledged by all who are qualified to give an opinion, the laws by which this power shall be directed and controlled may not be so fully understood. The questions to be settled are *when* and *how* to employ it; and the chief apology which I have to offer for calling up this matter again is, that I find many of my professional brethren who are yet either sceptical of the powers claimed for it, or who have taken the ground that it is a dangerous remedy.

As attending physician, I have several times been so unfortunate, as I deem it, as to have been necessitated to counsel with physicians called in, in the progress of cases of inflam-

mation in some important organ, in which I was already using this remedy, and where I felt entirely satisfied that it would in due time show its power, or when it was already satisfactorily exerting it, but they insisted upon suspending its use, because, as some affirmed, it was too prostrating; others, too uncertain; and yet others too uncontrollable. Each thus declaring his own want of sufficient observation in the true and successful mode of using the remedy, his opinions being the result of unfounded prejudices, caused perhaps by an injudicious use of it, either in his own hands, or in those of others.

To return to the question *when* should we use it? I say in the first stage of inflammatory action sufficiently severe to produce constitutional disturbance in whatever tissue or organ it may exist, before the products of inflammation are present, or at least before they are extensively deposited; when the nutrition of the part is perverted, the vessel overloaded and weakened, and the circulation retarded; before hepatization has taken place in the lungs to any great extent, or effusion into the pluræ; before the formation of false membranes in the larynx and bronchiæ, organizable deposits in and around the joints, or interstitial deposits into the parts involved, while as yet the weakened vessels are laboring to force forward their sluggish but not yet materially changed contents—*this* is the time to use and to *push* Veratrum Viride; and this is the time, too, to preceed its use or to aid its action by, if necessary, another remedy. I refer to general or local bleeding, which may be necessary in conjunction with the Veratrum, or antecedent to its use, in certain gross habits, or in cases of great vascular excitement. I venture this assertion, even though from former injudicious use bleeding has fallen into disfavor. Such cases may seldom occur, yet it is my conviction that they do occur, and I certainly would not let fashion or false theory arrest my lancet.

Having pointed out *when*, according to my observation and experience, Veratrum should be used, I will now try to show *how* it should be used. Take, for instance, a case of pneumonia in its first stage. Give to an adult male six or

eight drops of the tincture every two or three hours, instructing the nurse to watch vigilantly for the first occurrence of nausea or vomiting, in which case to suspend the remedy for one dose, giving some stimulant, such as essence of ginger or whisky, together with morphine or laudanum. The nausea or vomiting soon ceases, and the medicine can generally be resumed after the omission of not more than one dose. Occasionally, however, and most generally from the nurse's neglect to observe specific instructions, the vomiting may become quite annoying, but never uncontrollable nor dangerous. I have never seen it so difficult to control as the emesis produced by tartar emetic, which I most positively assert after many years constant use of the remedy. This unpleasant accidental result need very seldom, if ever occur, provided the patient and nurse obey instructions.

A very good plan, if the indications to be fulfilled do not forbid it, is to give the veratrum in conjunction with an opiate, which, while it checks the tendency to nausea, does not in the least delay or prevent the specific effects of the remedy.

The pulse can generally be reduced in twenty-four to thirty-six hours to sixty-five or less; and it can be held there as long as the physician desires. I have held it at less than sixty for more than a week at a time in some diseases requiring a constant control of the heart's action. The pulse falls first, the respiration and temperature fall afterwards; thus the vessels of the congested organ or tissue by having their supply of blood diminished, and consequently their work lessened, regain their power of reestablishing the normal circulation. As soon as the physician sees that his efforts have been fruitless, as his best efforts will be sometimes, from circumstances or conditions which his skill and vigilance cannot control, and that hepatization has occurred to some considerable extent, then the remedy is no longer indicated, and should be abandoned.

ART. V.—*Notes on Autopsies.* By L. C. CHURCHILL, M.D. Resident Physician to S. F. County Almshouse.

CASE I. F. T., *æt.* 49; weight 190; deformed; the right leg much the shorter; hip very large, either from unreduced dislocation or badly treated fracture of upper extremity of femur; head badly shaped, somewhat square as if compressed in its growth; forehead low; intellect dull. The appetite was voracious; digestion perfect; bowels regular. The patient had hemiplegia. He had a large osseous tumor, attached to the left fibula, at its upper extremity. After a fever, of but a few days duration, accompanied with delirium, the man died. On the day preceding his death, an immense tumor was discovered; arising in the left axilla, it extended to the waist and behind from the nape of the neck to the lumbar region, but not passing beyond the spine. This tumor gave evidence of containing both fluid and air, inflating at each inspiration, and with a very extravagant ronchus. It is probable that this tumor was quite suddenly formed, as it had not been discovered the day previous.

Autopsy, twenty-four hours *post mortem*. On the right of the mediastinum lay a very small used up lung and some two or three pounds of fluid; to the left, there was about one pound of water, and the remains of what had been the left lung, now totally impervious to air. About four or five inches to the left of the spine and between the fourth and fifth ribs, existed an ulcerated opening through the costal pleura and intercostal muscles, and communicating with the axillary and dorsal tumor! It had then been a case of hydrothorax, with an effort on the part of nature to perform paracentesis. It should be noted that this man's chest was very fully developed, there being no flatness of the chest or sinking of the intercostal spaces; the entire thorax as well as the rest of the body being full and plump.

CASE II. J. M., brought to the Alms house in great distress from painful respiration. He stated that he had had Asthma since birth, but as he was at all times partially delirious or lunatic, not much attention was paid to his statements. The pulse was feeble and irregular; countenance swarthy and pinched; each respiration caused a painful cry, and at times he had a suffocative cough. The sputa and, indeed, his entire person emitted an exceedingly offensive odor, which, added to his filthy habits, made him a disagreeable case to manage. He improved in appetite

and as to his sufferings for a short time, but on September 4th he was found dead in bed, having passed away during the night, no one knew when, although there were thirteen other patients in that ward.

On *sectio cadaveris*, the cause of death was apparent. The lungs presented a mass of knotty, hardened tumors, of a black color. From numerous sinuses and cavities a very dark fluid, of an offensive odor, flowed copiously. Throughout the hardened masses were numerous smaller formations of a lighter color but solid, and having within their structure no air tubes or cells. The left lung was almost wholly destroyed; the right had some portions remaining capable of performing its functions in a proper manner. The lungs were studded with tubercles, and adherent in nearly their whole periphery to the costal pleuræ, the union being so close as to make it quite difficult to dissect them out. The heart was evidently atrophied, and its muscular tissue pale and flabby.

CASE III. W. M., *æt.* 65; small man; exceedingly emaciated; pale and hectic; appetite almost gone, can eat nothing solid; has great thirst and excruciating pain in left hypochondrium; lies continually on that side, with knees drawn up, and has no rest unless under the influence of opium. He passes no solid evacuations, only small quantities of slime and blood; urinates frequently. After three days of intense pain, yielding to no remedies, he died.

Autopsy, thirty-six hours *post mortem*. Lungs tuberculous; partial hydrothorax on each side; *hydrops pericardii* about eight ounces; heart normal. The stomach was strictly healthy in appearance, its different coats presenting only their ordinary physiological appearances, but the organ was enormously distended, being an immense sac, but without other pathological indications. The spleen was much enlarged, nearly black and resembling clotted blood; on attempt at removal it readily broke up. The liver was enlarged, hardened, creased by the ribs, which had not yielded to the growth of the viscus, pressing between them, into the intercostal spaces. The gall bladder contained one gall stone, a solid, black concretion of the shape and size of a large nutmeg. The duodenum was normal, containing, like the stomach and small intestines, a small amount of fluid and much air. The colon presented a remarkable appearance, throughout its entire length. It was not sacculated, nor was it the one half of the ordinary size, and on grasping it in the fingers, it appeared solid; on section, it was discovered that the calibre was nearly oblit-

erated, the mucous membrane was thickened so as to nearly fill the tube, and there was softening of it and sloughing.

CASE IV.—Laborer, age 45, one-legged; has anasarca of existing leg and dropsy of abdomen. Had been tapped three times; at last time, it is said, three gallons fluid were drawn from abdomen.

The treatment was by diuretics and cathartics, with variable results, the water sometimes being nearly all voided, at others there being quite a large accumulation.

His appetite was quite good until the advent into the ward of a case of gangrene of the lungs, which emitted a very offensive odor. The appetites of nearly every one in the ward immediately failed, and directly four or five patients, who otherwise might have survived at least some days longer, died. Among those that succumbed, was the subject of this paper.

Autopsy twenty-four hours after death. The whole anterior parietes of the body, from the superior extremity of the sternum to the pubis being removed, exposed a pathological field of a character seldom witnessed. There was double hydrothorax, hydrops pericardii, and an extremely diminutive heart with diseased valves. Below the diaphragm there was no appearance of any distinct viscus. A thick, leaden-colored, leathery-like tissue covered the entire contents of the abdomen. The peritoneal lining of the abdominal walls also possessed the same dark blue hue. Three or four pounds of water were found in the peritoneal cavity. Over the left portion of the stomach, and covering the spleen there were numerous oblique slits in the investing blue membrane, exposing a yellowish tissue, which, on inspection, prove to be the omentum. Beneath and strongly bound down by the leaden-colored membrane were all the abdominal viscera. On being dissected out, each viscus was found to be affected by disease. The mucous membrane of the stomach and bowels throughout, exhibited unmistakable evidences of sub-acute inflammation, doubtless the result of protracted intemperance. The liver was small hard and knotted, not more than one-half its tissue retaining the power of performing its proper physiological functions. The bladder was small, necessitating very frequent efforts at micturition under the effects of diuretics. For three days previous to this man's death, there was extreme contraction of the pupils of both eyes, with much corrugation of the eyebrows; and at last, complete obliteration of all sense. I had suspected cerebral inflammation, but upon examination of the brain, after death, I could find no abnormal appearances.

The reader may form his own conclusions as to the causes that brought about this man's death.

REMARKS. To sum up this last case, there were tubercles in the remnants of the lungs; partial double hydrothorax and hydrops pericardii; an enormously distended stomach, not diseased in its anatomical elements, but thin and of great capacity; large gall stone; hypertrophied liver and spleen, and as for the colon, a condition evidently, of chronic inflammation probably of years' duration. The pathological changes found in this body, show the great tenacity of human life, in certain cases.

Gynecology and Diseases of Children.

ART. VI.—*A Rare Obstetrical Case.* By CEPHAS L. BARD, M.D., San Buenaventura.

I was called on January 30th, 1872, to see Mrs. R. P. D., a strong, muscular English woman, the mother of two children, who had been in labor for some hours. An examination revealed the presence of an excess of liquor amnii, the removal of which so expedited labor that she was soon readily delivered of a living, well formed male child, weighing ten pounds. The secundines, not passing away, were removed an hour later. As the womb showed no disposition to contract, although there was no flooding, I made a further examination and removed a mass, composed of a blighted fœtus or embryo, of about three months age, having a separate and distinct placenta. It was well formed but much compressed and flattened by the pressure of the other child (which is now living and in the enjoyment of good health); but neither it nor its placenta presented any signs of putrefaction. One of the accompanying photographs represents a full view of this secondary fœtus, and the other, a side view, showing its compressed, flattened condition. The woman is remarkably well developed, being both very strong and muscular, and during her term of pregnancy was accustomed to assist her husband in his daily

labors as a farmer. She stated that when about three or four months advanced in pregnancy, she strained herself in her efforts to remove a heavy barrel of water from a wagon and to place it on the ground.

I have no doubt that this accident caused a partial separation of one placenta, resulting in the death of the fœtus which it supplied.

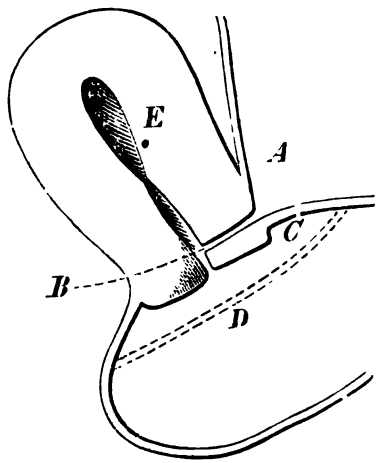
Formerly, the appearance of such a phenomenon would have been ascribed to superfœtation or to the occurrence of secondary conception, but at this day, with our better acquaintance with the anatomical and physiological relations of the maternal parts concerned in child-producing and child-bearing, we can admit no such supposition. There are exceptional cases, nevertheless, where it does seem that superfœtation occurs. During the later months of gestation there can be no possibility of such an event, because the womb is not only closed, but hermetically sealed. During the earlier months, however, before the third, for instance, before the formation of the deciduous membrane, before the os uteri is plugged by the secretions from the glands of Naboth, there is no anatomical peculiarity to prevent the ingress of spermatozoa, and as the laws of nature are not always immutable, it is plausible to suppose, as do Dr. Matthews Duncan and others, that there is an occasional exception to the rule that ovulation is suspended during the term of gestation, and that superfœtation does sometimes happen.

ART. VII.—*Occlusion of Vagina for Vesico-Vaginal and Vesico-Uterine Fistula.* Operation before the Class of the Medical College, August 21, 1872. Recovery. By C. T. DEANE, M.D., San Francisco.

HISTORY.—Mrs. F., *æt.* 42; nativity, England; married twenty-two years; first menstruated at seventeen; general

health always excellent; present weight two hundred pounds; has been pregnant twelve times; labor always difficult. 1863, tenth labor commenced in usual manner; after being in pain for forty-eight hours, craniotomy was performed and she was delivered. Nine days after, first noticed the urine pass per vaginam. The bladder had not been emptied during the whole time of labor. About nine months after, she underwent first operation, and she thinks at that time there was a portion of the cervix amputated (it was either then or at some subsequent operation). Up to the year 1869 she had submitted to twelve (12) operations, all of which were unsuccesssful, so far as stopping the involuntary passage of the urine. The menses have not been regular, as to time, since the accident, and always scant, ceased entirely eighteen (18) months since.

PATHOLOGICAL CONDITION.—On introducing the Sim's speculum, a small fistula, about the size of an ordinary probe, was discovered immediately in front of cervix and a little to the right of the median line. On injecting the bladder with indigo water, it was seen to escape, not only by the orifice already mentioned, but also from the cervix uteri, showing conclusively the existence of a communication between the bladder and uterus. A great portion of the anterior wall of the vagina was cicatricial tissue, due to the lesion in the first place or to the many after operations, and to close the fistula in the vagina would probably have failed. To have closed the vesico-uterine fistula would have necessitated cutting through the very small portion of the cervix left, and the danger of peritonitis would have been great. Consequently, I decided to operate for occlusion of the vagina. I therefore pared the vaginal wall as near the cervix as possible, taking out a ring of mucus membrane about one quarter inch in width, and bringing the cut surfaces together with seven silver sutures. The operation occupied two hours and a half. The woman was put to bed, and a grain of opium administered every day, to keep the bowels constipated. The Sims self-retaining catheter was kept in the bladder continually, it being removed for a moment



A—Bladder.—B Vesico-Uterine Fistula C—Vesico-Vaginal Fistula. D—Line of Union. E—Uterus.

only, three times a day, to clean. The sutures were left *in situ*, for fourteen days, when they were removed (in the presence of the class), and union found to be complete. It is now (September 24) three weeks since the sutures were removed, or since she has used a catheter, and the operation is in every way successful, the urine passing by the meatus, and it being under the perfect control of the patient.

REMARKS.—This case is interesting for several reasons: First—It shows conclusively that there is no point at which recuperative surgery should say that such or such a lesion is incurable, for notwithstanding the fact that this woman had been operated on twelve times, by surgeons of deserved reputation, it remained for the thirteenth operation to prove successful. Emmet, in his work on Vesico-Vaginal Fistula, says, page 15: "Previous to October, 1867, I had had about "two hundred and seventy cases under my charge. About "two hundred had been cured, five I had regarded as in-"curable, and between fifty and sixty returned home "improved, the greater portion of which will be cured if "they ever return. The cause which obliged me to aban-"don as wholly incurable several of the cases, was not so "much in consequence of the actual extent of the injury "sustained, as from excessive obesity, which rendered it "impossible to bring the parts in view." We find in this case the very fact which Emmet mentions as being a frequent cause of failure, viz, "obesity," the woman weighing two hundred pounds, and probably the non-success in closing the vesico-vaginal fistula may have, to a certain extent, been due to that cause. Second—It demonstrates conclu-

sively that the vagina will hold urine without forming abscess or inflammation as well as the bladder, which heretofore some of us may have doubted.

My grounds for performing this operation in preference to the usual one of simply closing the vaginal fistula were two: 1st, The anterior wall of the vagina was one mass of cicatricial tissue, and therefore the probability of getting union by first intention was, to say the least, remote. 2d, The vesico-uterine fistula could not have been reached without great danger to life, as I imagine the slitting of such portion of the cervix as was left after a former amputation, so as to close the fistula, might have caused peritonitis, several cases of which Emmet mentions in his work heretofore referred to. Now, with these difficulties before me, I had two modes of procedure left, *Episiorrhaphy*, or closing the vagina by paring the labiæ majora and uniting them, or occlusion as near the cervix as is possible. I decided on the last, and operated successfully as already stated. At the time of the operation, I had never heard of its having been performed, and on mentioning it to some of my professional associates, they severally found grounds for exception, and notwithstanding the fact of its success they theorized that the vagina would not tolerate the presence of urine, and that the patient must necessarily have absess, pelvic cellulitis, *etc.*, *etc.* These criticisms impelled me to a more thorough investigation of the subject than I had heretofore given it, and I find that the operation is not new by any means. Emmet, in his work already referred to, page 134, says: "As there had been no menstrual nisus for "over two years, and she continued in good health, it was "deemed best, simply to close the vagina in front of the "fistula." I find by referring to Thomas' 3d edition, page 196, the following on this subject: "The second consists "in paring, not the labiæ, but the vaginal walls, strips of "mucus membrane being thus taken away, the bleeding "surfaces are brought in contact by suture, and the blad-"der is kept empty by a catheter until union has occurred. "This procedure, a far more valuable one than that of "Vidal, was first performed by Prof. Gustav Simon of

"Heidelberg, who has applied to it the name of 'Kolpok-
"leisis,' or cross-obliteration. Prof. Simon's first opera-
"tion was performed in 1855, and since that time, he
"declares that it has been resorted to in Germany in over
"fifty (50) cases, with complete success."

ART. VIII.—*On the use of Pepsine Wine in the artificial Feeding of Infants.* By W. J. CUMMINS, M. D.

* * * * There is nothing, of course, like a good breast of milk for an infant, if it can be had; and in "the good old times," when the peasantry and small farmers lived on potatoes and milk, without stimulating their nerves with strong tea, nor their brains with penny-a- liner's words, there was an ample field for the selection of a foster-parent; but now even when the *rara avis*, a good nurse, is procured, she is so independent and knows her power so well, that any caprice must be humored, and she is always ready to throw up her situation or neglect her charge. A wet nurse is, then, an admitted torment and a balance struck between its advantage and disadvantage is generally against the former.

Artificial feeding by bottle is a great improvement upon the old system of spoon-feeding, as the act of suckling stimulates the salivary glands and insures due in-salivation, which is an important part of infantile digestion. With such an aid the stomach of most *human* infants is vigorous enough to fall into the way of digesting *cow's* milk, properly diluted, and mixed with sugar and cream to assimilate the proportions of its constituents to human milk—but besides the relative excess of casein and albumen contained in cow's milk when compared with human, the coagulum of the latter is "soft, flocculent, and not so thoroughly separated from the other elements of the fluid as the firm, hard curd of cow's milk is from the whey in which it floats." (West)

When we reflect that the digestive organs of the *human* infant are found to digest human milk, and the force of its gastric juice proportioned to the solution of its soft flocculent coagulum, we can understand why the solvent power of its gastric juice is sometimes unequal to redigesting the firm curd of cow's milk. When such is the case, acetous fermentation is quickly set up; offensive gasses distend the stomach and taint the breath, vomiting and diarrhœa set in, and in process of time the little patient sinks into a miserable state of marasmus and dies. The remedy for this state of things is simple, for although we cannot change

the elementary composition of the milk we have to use, we can introduce into the infant's stomach a digestive power proportioned to the food it has to use—the organic principle of digestion taken from the stomach of the calf.

It is now many years since I first applied this simple theory to practice in the case of one of my own children, who, when about three or four months old, was reduced to a condition of marasmus by vomiting and diarrhœa due to imperfect digestion of cow's milk. I ordered him fifteen or twenty drops of pepsine wine, to be given immediately before or after each meal. Soon after commencing it he began to improve, and by degrees all bad symptoms vanished, and nutrition was quite restored.

The Pepsine was continued until he was nearly two years old, and he throve at least as well as if he had been wet-nursed; other treatment, of course, pre-aided and accompanied the use of Pepsine, but it was not until the latter was commenced that improvement took place.

Shortly after, a child born in England, and bottle-fed, was brought over to this country when about six months old; he also was suffering from infantile dyspepsia, and was pining away in a listless, apathetic state, quite indifferent to surrounding objects, and appearing as if he would lapse into idiocy from mal-nutrition of the nervous centers. I immediately ordered him pepsine wine, which produced such beneficial effects, that after it had been continued about twelve months, he had become a bright, intelligent, well-nourished child.

Since then I have never recommended a wet-nurse, and have used Pepsine wine largely in dispensary, hospital, and private practice, and have seen many apparently hopeless cases recover under its use.—*Dublin Journal of Medical Science, Feb.*

Ophthalmology and Otology.

ART. IX.—*The Uses of Atropia.* By ERNEST HART, ESQ., Late Ophthalmic and Aural Surgeon to St. Mary's Hospital.

In a short series of papers I have already spoken of several common causes of error and misfortune in the treatment of ophthalmic diseases and injuries, based upon the examination of a decenniad of cases; and have especially referred to

consequences of superficial examination of cases which resist manipulation, and of a slowness to appreciate the characters of, and enter upon the appropriate treatment of, glaucoma. I believe it will be useful, further, to group together, for the sake of emphasis, a numerous class of cases in which I have seen mischief arise from slowness to apply atropia locally. Looking through a long list of cases, I find that I have employed atropia-drops in the course of the treatment of 1,523 out of 2,710 consecutive cases of disease and injury of the eye (a list not including, of course, affections of the ophthalmic appendages); and I pass in review a long array of cases in which I had to regret that it had not been used before the patients came into my hands. Two of the most recent consultations which I have entered, were cases of injury to the eye, respectively at Paddockhurst and Brighton, during the last month. In both cases the treatment had been unexceptionable, except that atropia had not been used; and, though the globes have been saved, the fixed and closed irides will make the possibilities of vision depend upon iridectomy under not very favorable circumstances. In the very last consultation on a case of iritis, of which I have notes, the treatment had equally been conducted without dilating the pupil. Mercury, leeches, and lotions were in use when I was called; a darkened room and an antiphlogistic diet were all in use when I was called; but the vision was extremely misty, the pupil contracted, and the patient in proportionate danger of "false pupil" from the effusion of lymph, and loss of sight.

Now I do not think I shall be using an exaggerated form of expression, or going beyond the strict and well-balanced weight of words which is necessary to give due force to the fact to be conveyed, if I say that we could, in the treatment of ophthalmic disease, better afford at this day, so far as our knowledge of disease and means of mastering it extend, to dispense with all other drugs, lotions and applications put together, than with this one *topical* medicament. Let us consider what atropine does for the inflamed eye. It allays local sensitiveness, and removes local spasm; it gives to the eye and to its internal muscular apparatus—iris and ciliary muscle—physiological rest, the greatest of all curative means. Nor does it do this only, but, in dilating the pupillary aperture, it drives far from us the bugbear which long haunted the opthalmic surgeon, and which still pursues those who are not sedulously active in the use of atropia—closure of the contracted pupil by an adherent plug of lymph, and gluing of the uveal surface of the iris to the lens. It would rob the consulting surgeon of a great many

profitable but trying operations, if the atropine eye-drops were ready in every surgery, not only on all emergencies, but for the exigencies of daily practice. It is as safe a rule in ophthalmic practice to use an atropine drop when in doubt, as in whist to play a trump. I can hardly think of more than one absolute contra-indication, and that is the oval dilatation of the iris in glaucoma. There are, of course, also mechanical contra-indications, as in peripheral wounds of the cornea with hernia of the iris, where to dilate the iris is to increase the peripheral protrusion; but even here, the moment the corneal gap is healed, atropia becomes of the first necessity. But in all cases of iritis, in contusions and injuries of the eye, in corneitis, purulent ophthalmia, scrofulous ophthalmia, and deep-seated mixed inflammations of the eye, the local instillation of a solution of atropia is the most precious of therapeutic means. The most useful strength is, I think, expressed in the formula: Neutral sulphate of atropia, two grains; glycerine, five drops; distilled water, an ounce. The frequency of the use of the drops must vary with the facility and rapidity with which it acts. Where the iris has become much inflamed before the local treatment is adopted, it is sometimes very indocile, slow to respond, and hard to dilate. The measure of frequency must be the amount of resistance, and perseverance must be the rule of treatment. In the treatment of keratitis and minor cases of deeper inflammations, one application a day, or at most two, will suffice; and presently, once in two or three days. It will be enough then to keep the pupil dilated, and the ciliary apparatus at rest and free from tormenting spasm. The present result of the most careful observation of the origin and cause of ophthalmic disease pursued with the advantages of the improved methods of optical diagnosis now at our command, is to simplify our treatment, and to ostracise a majority of superfluous agents of medication. With a little cotton-wool, alum, and glycerine, hot and cold water and atropine, and a pocket-case of instruments, we can treat with a previously unattainable success nearly the whole range of ophthalmic diseases. I am speaking of local and surgical treatment. Ointments, poultices, caustics, irritants, scarifications, venesections, blisterings, and setons, may be looked upon almost as things of the past. The medical, dietetic, and hygienic treatment are favorably modified, and simplified to an almost equal extent, by the intelligent study of diathetic indications; but the whole shopful of topical applications may be left aside by the surgeon who will thoughtfully apply the vast resources of the few simple agents I have named; and

of them all, atropine is the greatest. I will not undertake to say that mercury is useless in the treatment of some forms of (syphilitic) iritis; but I will affirm that I have repeatedly seen iritis occur and run a very severe course in patients previously and at the time already under the influence of mercury; and that, in a long series of cases which I treated by atropia and careful dieting only, and without mercury, during five years at St. Mary's Hospital, the results were so excellent that I could not affirm that they would have been improved by the most guarded and judicious use of mercury. A number of these cases were seen by my colleague, Mr. Gascoyen, who took part in the experiment.

It is possible, though not easy, to abuse atropine. It must not be used, as I have said, in glaucoma or in peripheral wounds of the cornea. A case or two of troublesome constitutional symptoms, through absorption of the excess by the lacrymal mucous membrane, have been recorded. This is never likely to occur with ordinary care, and I have never seen it occur; but it may be well to bear it in mind in treating infants. The most convenient and unfailing application may be made by the use of the atropised gelatine discs which I introduced a few years since, and which are now largely used in this country and abroad. They are always ready, do not spoil by time, and are clean and precisely dosed, each disc containing as much as a drop of the solution I have mentioned.

I do not think I have spoken too strongly of the advantages in practice of a free use of the local instillation of atropine. In cases of doubt, it will often throw much light upon an obscure condition; and those not much given to studying ophthalmic cases will be pleasantly surprised to find how often it will, in a dubious case, first display, and then rectify after a few days, recent and unsuspected adhesions of the iris. In the average run of ophthalmic cases, whether for the treatment of a large proportion of the inflammatory disorders of the eye, by securing ansæthesia and physiological rest, or in the diagnosis of optical defects, it is of ever-recurring use. Few things would tend to curtail the extent and to increase the success of consulting practice, more than a judicious prodigality of the general practitioner in the local use of atropine.—*Michigan University Med. Journal, Sept. Vol. III, No. 7.*

ART. X.—*Two Cases of Sudden Loss of Sight—Recovery.* DR. FOLSOM reported the cases.

A woman, 44 years of age, had had severe neuralgia, followed by intense pain in both eye-balls and loss of sight. Both eyes were congested, and there was nausea and vomiting. The pupils were natural in size, and the eye-balls were of normal hardness. Quinine and a hot bath were ordered. In five or six hours there was a complete remission of all the symptoms. The nausea and pain entirely disappeared. Some slight congestion of the eyes alone remained. During the next thirty-six hours all these symptoms returned twice. Opiates were administered. After the third attack the symptoms gradually disappeared. The patient was now well.

A woman, 44 years of age, had an abortion at the third month, followed by considerable hæmorrhage and a retained placenta. She became very ill, and the following night was seized with severe pain in the eyes, and, according to the statement of the nurse, with total blindness. The next morning, when Dr. Folsom saw her, she complained of some neuralgia along the course of the occipital nerve on one side, and also of an intense pain in the right shoulder. She was also suffering from more or less nausea. She was unable to see a light held within two feet of the eyes. The next day she was perfectly well.

Dr. Williams said that in puerperal cases a complete loss of sight occurs often from a phlebitis of the eyes, but in these cases it was usually limited to one eye. In glaucoma there was frequently a remission of the symptoms; but this should not prevent us from being prepared for another attack.

Dr. Fisher said he had under his care a lady, who, after intense neuralgia of the left eye, had almost complete loss of vision in that eye, lasting six months. After a previous attack, says she saw the right half of objects only, for a short time.

Another patient, a lady, after a severe congestive headache, a year ago, *lost vision* in the left half of the left eye, a state of things which still continues, and is due, Dr. Derby thinks, to permanent disablement of part of the optic nerve.

Dr. Wadsworth said that some four or five years ago, while walking in the street on a very hot day he felt slightly dizzy, and on looking at a large sign in front of him he observed that the upper half of each letter was distinct, while

the lower half was much blurred. On changing the direction of the eyes slightly, so as to fix directly the lower part of the letters, the lower half of each letter was distinct and the upper half blurred. The line of division between the distinct and blurred portions of the letters extended horizontally the whole length of the sign. The same appearance was noticed on looking at several other signs. This condition lasted only three or four minutes, and was followed by a violent headache.

Dr. Folsom said that some time since he had seen a gentleman, about 40 years of age, who had an attack, similar to what Dr. Wadsworth had described, two or three times a year. He had a father and mother who were insane. The division line was perpendicular, the left half of the object being visible. He had been for some years a sufferer from dyspepsia. He had always been an inveterate smoker. On giving up the use of tobacco, the difficulty in both the eyes and stomach disappeared.—[*From the Boston Medical and Surgical Journal.*]

ART. XI.—*Notes of Hospital Practice.—Wills Ophthalmic Hospital.* Service of GEORGE C. HARLAN, M.D. Reported by CHARLES K. MILLS, M.D.

RETINITIS.

Y. M., *æt.* 14, the day before applying to the hospital was struck on the left eye with an exploding fire-cracker. Examination of the injured eye showed considerable ecchymosis of the upper lid, moderate conjunctivitis, and a little blood at the bottom of the anterior chamber, probably from a rupture of one of the vessels of the iris. The pupil dilated irregularly, but freely, under the influence of atropine. The other eye was not sympathetically affected. Vision equalled $\frac{20}{cc}$.

By the ophthalmoscope the disk was found to be much reddened and the vessels dilated. Several small specks of extravasation were detected, and at the upper part of the retina there was a slight haziness from œdema.

The artificial leech was applied to the temple, sulphate of atropia, grs. viij to f ℥j, was instilled, and he was ordered a Seidlitz powder, and to be kept in a darkened room.

At the end of ten days, the ecchymosis and conjunctivitis

had disappeared, and the blood in the anterior chamber was nearly all absorbed. Vision now equalled $\frac{20}{xxx}$, two thirds of normal.

The ophthalmoscope now showed the disk slightly "choked," and the vessels tortuous and in some places interrupted. The œdema of the retina was not diminished.

At this stage Dr. Harlan prescribed iodide of potassium, grs. x, and the bichloride of mercury, gr. $\frac{1}{24}$, three times daily. An eight-grain solution of sulphate of atropia was also instilled in both eyes to insure complete rest, by preventing the patient from using even the sound eye.

The case still remains under treatment.

ANTERIOR STAPHYLOMA FROM SYPHILITIC IRITIS.

M. M., *æt.* 22, acknowledged having had gonorrhœa six months before applying for treatment. She probably had had a chancre, but this could not be determined. Her appetite had been poor, and she had lost a little flesh, but she had not suffered from bubo, sore throat, or any affection of the mucous membrane of the air-passages. An eruption, probably syphilitic, made its appearance on her face and arms nearly four months after she first noticed an unhealthy vaginal discharge. She had no abscesses, ulcerations, or tibial nodes, and never had experienced pain in the long bones. She had a mild form of psoriasis palmaris, which had not disappeared at the time of her admission; and she had had two bad attacks of orbital neuralgia a few days before this time.

About four weeks before coming to the hospital, her right eye began to inflame, and, although under treatment, it rapidly got worse, and presented a striking appearance when first seen. A large staphyloma anticum of the sclerotic had evidently existed for several days, having formed in the short space of three weeks from the date when her eye was first attacked. The staphyloma was probably due either to a thinning of the sclerotic and increased intraocular pressure, or to a gummatous deposit in the ciliary region—the latter view being rendered more likely by a bulging forward of the iris, which gave to the pupil a deep-set appearance. The conjunctiva was much engorged, and the eye was intensely painful. Around the cornea the zonular redness was at first very marked; but while under treatment it gradually changed to a beautiful bluish tinge. The iris was adherent at several points along its pupillary margin, causing a slight irregularity of the pupil. Irido-cyclitis, in one of its worst forms, was holding full sway over this eye, the restoration of which was deemed hopeless. The patient came, in fact, to be treated for the left eye.

Two or three days before admission, her left eye had begun to be seriously affected. It presented decided symptoms of incipient iritis—pain in the ball, slight darkening of the iris, episcleral zone, etc.

She was at once placed under treatment. An eight-grain solution of sulphate of atropia was instilled twice daily in both eyes. Inunction with mercurial ointment was ordered to be used daily, and quinine, with iodide of potassium and the bichloride of mercury, was given internally.

In two days after coming under treatment, the pain in the left eye had ceased, and in a week the right was also free from pain. She has now been in the hospital five weeks, with the above treatment and good diet: the left eye is entirely well, and even the right has much improved, all active inflammation in it having subsided.

ABSORPTION OF ORBITAL FAT.

J. S. B., *æt.* 42, nine years since was struck violently across the nose and eyes with a heavy rope. The blow fractured his nose, and left him unconscious for five hours. The day after the accident, black spots appeared before the right eye, and its acuteness of vision began rapidly to diminish; at the time of coming to the hospital he had only a perception of light in this eye. Four months after the injury, the sight of the left eye became suddenly dim, and has remained without material change ever since, vision in this eye equalling only $\frac{2}{10}$, or one fifth of the normal acuity, refraction being emmetropic and accommodation $\frac{1}{13}$.

A few days after the accident, the left eye began to sink in its orbit, and continued to do so until it reached its present peculiar condition: the orbital fat has been entirely absorbed, and the lids falling in have caused a deep sulcus above and below the eye. When the lids are raised, the anterior two thirds of the ball can be plainly seen. The motions of the ball are limited in all directions but downwards. The patient can scarcely raise the pupil above the horizontal line.

SLOUGHING KERATITIS.

H. M., *æt.* 24, six years before coming under the notice of Dr. Harlan had primary syphilis, and was still occasionally troubled with a stricture. Now and then for five years he had suffered from rheumatic attacks, and once he had had an eruption of red spots.

He never had any trouble with either eye until three days before coming to the clinic, when he went to bed in the evening feeling quite well, and awoke the next morning with

the right eye painful and highly inflamed. He remembered having been exposed to a draught while he slept. He never to his knowledge had a foreign body in the eye.

When first examined, in addition to great conjunctival injection, lachrymation, and photophobia, he had a central ulcer of the cornea, and a slough about 2″ in length between the corneal layers immediately over the pupil. Vision equalled only $\frac{8}{20}$, one twenty fifth of normal.

A free incision, with a Graefe knife, was made in the cornea, and the slough removed, and after the operation atropia was daily instilled. The patient rapidly improved, the inflammation abating, and vision in ten days coming up to nearly one half of its normal acuteness. He still reports.

TWO CASES OF CONGENITAL MICROPHTHALMOS.

G. M., *æt.* 17, had very small eyes, the corneal diameters being only four lines. The fat was entirely absent from both orbits. The lens of the right eye was cataractous, and vision in this eye only quantitative. The pupil of the left eye was clear, except a small white speck at the inner edge. The catoptric test showed three images, proving the presence of the lens. Acuteness of vision was one fifth—$V = \frac{20}{20}$. When the accommodation was paralyzed by atropia, a convex lens of 3″ focus gave the best distant vision, showing a total hypermetropia of $\frac{1}{3}$. Nystagmus was marked—the eyeballs oscillating rapidly and almost constantly in a horizontal direction. This nystagmus and the contracted pupil prevented ophthalmoscopic examination.

Y. M., *æt.* 14, a brother of the last patient, presented a similar condition of the eyes as regards size, absence of orbital fat, nystagmus, etc.; and, in addition, he had convergent strabismus of the left eye, and in the right a good example of coloboma, having a fissure downwards in the iris. He had a manifest hypermetropia of $\frac{1}{5}$.

Several other members of the same family have serious congenital defects of the eye.

NUCLEAR CATARACT.

M. M., *æt.* 17, supposed that his eyes had always been in about the same condition that they presented when he applied to the hospital. He had distinct nuclear cataract in both eyes, the opacity of the lenses just occluding the pupil in moderate dilatation. The cataract did not present the yellow or yellowish-brown tinge of senile nuclear cataract, but was white, or, more strictly, grayish-white in color. After the eyes were placed under the influence of atropia, the peripheral portions of the lenses were discovered to be

clear, with the exception of a few slender striæ. The fundus of each eye was found to be normal, being easily seen around the cataracts. The refraction of each eye was emmetropic, and vision in each equalled $\frac{20}{LXX}$, or two sevenths. When the atropia was instilled, this vision was increased to $\frac{20}{L}$, or two fifths.—[*From the Medical Times.*]

Editorial.

A Disgrace to the Profession.

In our last Number we alluded to the fact, that in any legal case where medical testimony was necessary, "swift witnesses" could be found who, claiming to be experts, honestly perhaps would testify on either side, acting "the "part of retainers for the party calling them; and not only "bend their opinions, but interpret facts, in the interest of "the side to which they are friendly."

We have received confirmation of this fact since, in a transaction which took place in New York city. Complaints reached the public, of abuses in the Bloomingdale Asylum, and to test the truth of these reports, as well as to learn how easily a perfectly sane person, could be imprisoned for life, by means of "expert testimony" improperly employed, the *N. Y. Tribune* caused one of its reporters to be examined, as the law requires in cases of alleged insanity. By the law of the State, "no alleged lunatic shall by any "process be confined, without the sworn certificate of two "reputable physicians; a brief report of the evidence to be "filed in the office of the County Clerk." Yet two reputable physicians (assisted by a medical student and a professional nurse), pronounced a perfectly sane man, to be "a violent lunatic, dangerous to himself and others!" Armed with this formidable document, those in charge of the reporter, presented him to the physician in charge at the above mentioned asylum. This worthy (?) received the patient, and without even asking the name of one of the

gentlemen committing him, and after an examination of less than one minute, consigned him to the ward for excited patients!

When the reporter had remained two weeks, long enough to learn the truth of the reports he was sent to investigate, a *habeas corpus* was brought, but the man was mysteriously released before the Court could interfere. It must be evident to all, that an asylum where such abuses get a man in and let him out with equal facility, must tolerate greater evils during the time of his residence there.

The point we wish to insist on in this case is, the readiness with which "two reputable physicians" give a certificate to the parties requesting it, to the effect that a third party is insane, "dangerous to himself and others." We have no doubt but that each of them considered himself an expert on the subject, and perfectly qualified to go before Judge or jury, and testify intelligently as to the mental capacity of the accused; whether, because of his insanity, he should go unpunished; or if the will be made was illegal and must be broken, on account of his mental aberration when drawing it; or if his facetiousness in causing the death of an entire family by burning the house over their heads, is to be laughed at, and he be excused for it. By the exercise of the *greatest* charity we may excuse, on account of ignorance, the action of the "two reputable physicians," and hope that juries will forget them in particular, when hearing "expert testimony" from those, supposed to be, competent to instruct them; but in what language shall we condemn the act of the physician in charge of the asylum, in receiving a patient, confining him in the ward for excited patients, and retaining him there for two weeks, without any satisfactory previous examination, any knowledge of the patient's antecedents or apparently any idea of his own, as to what constituted insanity or how a dangerous lunatic should behave? Our remarks, apply with equal force, in case the attendant, who received the patient, was not the chief medical officer of the institution. Medical men attending solely to the care of demented humanity, are generally supposed to be better qualified to administer to the unfortunates, than those

in general practice ; they would be considered experts in the eyes of judge, jury and lawyers, and yet, here is one whose testimony, added to that of two (other) ignoramuses, would have pronounced this perfectly sane man, as mentally unsound and morally irresponsible, had he committed a murder, and their united testimony would probably have defeated justice.

We blush for the disgrace thus thrown on the profession, and our only hope is, that laws regulating "expert testimony" will be speedily enacted, making it almost, if not entirely, impossible for such blunders to be committed and the profession held responsible, as it must be in this instance.

The case has a moral, and that moral should be studied by juries and district attorneys. On the commission of almost any great crime now-a-days, it is customary for the defendant's lawyer to set up the plea of insanity, and that too, when the accused has never shown symptoms of lunacy before the crime was committed. It is almost equally customary for juries to acquit the prisoner on the strength of the plea, if two or three medical witnesses testify to the mental condition as clearly as those did, to whom we have referred in this paper. Let our officers of justice remember, that insanity is easily feigned, and that in this instance, a newspaper reporter succeeded in even deluding those whose profession and study it is (or is supposed to be), to treat the unfortunates—who in Bloomingdale are seen to be doubly unfortunate, in having to remain under the charge of either totally incapable or criminally ignorant men. We are glad to note that Gov. Hoffman has appointed a commission to investigate the charges against the institution, and we trust that a general clearing out of officers will be had, if all resemble the one in charge on the day when the *Tribune* reporter entered——or left uncured, or without process of law, if insane.

WE have received the following from a prominent physician of Sacramento:

"*Compensation for Expert Testimony.*"

MESSRS. EDITORS:—In an editorial under the above caption published in the LANCET for August, you have failed to notice the fact, that at the last session of the Legislature a general law was passed, which provides that physicians, surgeons and chemists may obtain pay for their services in criminal cases

This Act was suggested and urged upon the Legislature by a committee of the Sacramento Society for Medical Improvement, and it is believed that its passage places California as the first State to acknowledge the principle, that the time of a medical witness cannot be consumed in a Court of Justice without compensation. As many of the profession seem to be unaware of the existence of such a law, I wish to state that it can be found on page 81 of the Statutes of California, 1871–2, and for the present infromation of those who may not be within reach of a copy, I beg leave to quote section II:

"Any physician, surgeon or chemist professionally attending as a witness on an inquest, or upon a trial of any person charged with murder or manslaughter, or in cases *de lunatico inquirendo*, as above provided, shall be allowed a reasonable compensation for such attendance or examination, by the Board of Supervisors, upon the written certificate of the Court or officer requiring such services, as to the extent and supposed value of the same; provided, that such certificate shall not be conclusive as to the amount of compensation."

"SACRAMENTO."

REMARKS.—We were aware of the passage of the law referred to by our correspondent, and cheerfully award to the "Sacramento Society for Medical Improvement" the full credit for its very meritorious action in its endeavor to benefit our profession, but the point on which we insisted was, that *adequate* compensation was due the skilled witness. The act referred to does provide that compensation shall be given, and that the Judge or Coroner shall certify to the fact of services rendered and the supposed value thereof, yet it leaves it entirely optional with the Board of Super-

visors as to *how much shall be paid.* If the last "provided that" in the section quoted had been omitted, the medical man would stand a far better chance of getting a "reasonable compensation;" because the Judge being a professional man, is better qualified to estimate the value of professional testimony and we do not think that his enlightened views would place it at too low a figure.

With some Boards of Supervisors there may not be occasion to find fault, but it certainly cannot be denied that those Boards, as usually composed of politicians, country farmers, storekeepers, etc., are not prone to estimate at a high valuation, services not rendered solely to the dominant party, or the product of mental, not manual, labor. That one Board, in a certain county, may be just or liberal is no proof that the Board of the adjoining county must be so, and it is to guard against injustice in any locality that we desire the passage of a more definite law. As the law now stands, the medical witness, the Coroner or Judge and the profession of the locality may not deem a charge of $50 for an autopsy to be exhorbitant, yet the Board of Supervisors may think $10 ample compensation, and there is no redress —the decision of the Board is final.

If summoned as a witness, the physician must go, must testify, and if necessary (we were in error on this point in our last editorial) testify as a skilled witness, or in other words, as an expert, and he is left entirely at the mercy of the Supervisors, any of whom might be mistaken enough to consider a charge of $25 for amputating his limb, as preposterous! It is much more difficult to get the value of one's services acknowledged *after* they are rendered than *before,* and when suffering or interest demanded them.

A surgeon or an expert artisan may accomplish in five minutes an act, the knowledge and dexterity to do which, may have cost years of time and a large sum of money to acquire. He should manifestly not be paid for the time spent in its performance.

We repeat, then, we are thankful for the little we have; we need more; we consider that our local societies, acting through the State organization, can obtain that which we

require and we urge the whole profession to assist in its accomplishment. We can then say: One local society entered the wedge, others assisted in forcing it in, and California was "the first State to acknowledge the principle that the time of a medical witness cannot be consumed in a Court of Justice without (*just*) compensation."

Diluted and Slowly Operating Justice.

We congratulate the profession on the tardy justice at last rendered in the matter of the medical attendance on the State Deaf, Dumb and Blind Asylum. When this institution was opened, the attending physician was Dr. J. P. Whitney, of this city, and he attended until the establishment was moved to Berkley. Finding that he could not continue the duties on account of the distance (four miles beyond Oakland), from the city, he resigned the office in favor of Dr. Pinkerton, of the latter place. The salary was $50 per month.

The Legislature of 1869 organized the institution when completed, and provided for the appointment of five trustees in whom power should be vested to manage the interests, appoint and remove officers, etc. By lobbying, the Board was appointed, one of the number being a M. D. from a prominent University in the South, but who had apostatized and was practising irregularly, and in consultation with homœopaths. This trustee was created physician to the institution, and the salary raised to $100 per month. (No objection can be made to the raising of salary, as the latter sum is small enough compensation for the duties required; but it is hard to think, that it was necessary to be in the ring, in order to get properly paid for services rendered.) The same organization of trustees continues, the same medical attendant was on duty until about the commencement of this year, when, on account of engaging in business, which demanded his absence from the city, the practice of medicine was

abandoned, but—the trustee did *not* resign his other office! He appointed as his relief another medical apostate, one graduated in the regular school, but who, after a lengthy residence in a country town, for some reason changed his medical politics, and commenced business in Oakland with "Homœopathist" on his sign. This state of affairs continued until the 2nd inst.

Either outside pressure, or a sense of justice, (or because but four trustees had heretofore been brought together at the monthly meetings), at last induced the Board to request the resignation of the trustee, *as physician*, to permit an election to be held, in order that the responsible duties might be performed by the nominally elected official, and not by proxy.

This device failed, but at a *full* meeting of the Board held on Monday, the 2nd inst., the office of physician was declared vacant, and Dr. J. C. VanWyck, of Oakland, was elected to fill the vacancy, the vote standing 3 to 2. We chronicle this with pleasure, and have no doubt but that the health of the institution will be as faithfully cared for, and the duties of the medical office as efficiently performed under a full dose of allopathic capacity, as it has been when that requisite was infinitesimally diluted.

To Some Correspondents.

We again express our gratitude to the numerous correspondents who have assisted in making the LANCET as popular and valuable as the subscription list has proven it to be; we consider that they have rendered a great service to the profession in giving the results of their varied experience, and have enabled us to produce a professional journal, more free from *scissor* editorship, than any of the seventy or eighty American journals with which we exchange.

There is a subject to which we must allude in print, because it is simply impossible to write personally in answer

to each of our well-wishers who have the disposition to assist us—and that subject is, the carelessness with which some write, and then desire us to "review and correct, if necessary"!

We have done this in some instances, when the subject matter of the paper has been of *especial* value; but we regret to say, that we hold manuscripts which, if published as they now stand, would do *no* credit to their authors, whether in the matter of spelling, grammar, construction of the English language, or conveying a correct idea of the views of the writers on the ostensible subject of the paper. We do not see that it is incumbent on us to spend hours to correct, or *re-write*, as we have done, in order to accommodate some medical man in the enjoyment of fully as much leisure time as we may possess, independent of our editorial duties; and we beg indifferent correspondents to reflect, that their writing for the LANCET is not a personal favor to us, but to themselves, to the whole profession, to humanity which would suffer but for the experience and labors of medical men—it is a favor. We request those who would give their fellow laborers the result of their efforts and observations, to consider that, printers have no latitude allowed them in setting type (although readers of this paper may have noticed that ours have often assumed the privilege), that the burden of "revision and correction, if necessary," must come on the editors, and to give a little more time to their articles. It will be for their advantage, more than ours.

We have written the above, not to excite wrath, but in kindness, and it may serve to explain why some articles sent us have not appeared—the others we reserve for future numbers, or do not consider them of a character suited to our pages. We still extend our invitation to all, to write and to consider that, possibly from our stand-point, we may be better judges of the necessity for certain articles; there can be those whose position cannot give them such a range of medical literature as that to which we have access through our exchanges.

Communication.

We received the following letter, from Dr. Andrei last month, but could not give it place, owing to the quantity of matter already on hand. We hope the Doctor will excuse us for its rather tardy appearance.—[ED.]

MESSRS. EDITORS:—I have noticed in your estimable journal for June, a question addressed to me, by my confrére, Dr. McNutt. I should have immediately and with pleasure sent to you the response he demands, had I not lacked the time, although the response did not demand great application, but on the contrary, the greatest laconism. In regard to this question, I should observe that I understand the first part, but that I cannot admit the second, for the simple reason that Dr. McNutt makes a great mistake when he supposes me to say that which I have not said. It is the more difficult to understand this mistake, as the Doctor reports my exact words, and consequently, he addressed the question to me with the original under his eyes. Where does Dr. McNutt find that I accused the climate of San Francisco as being unfavorable for the operations of general surgery. On the contrary, having been in San Francisco for three years, and having performed numerous operations in higher surgery, I should attribute the brilliancy of my statistics, in part at least, to the climate. I have only heard the climate of San Francisco, relative to the operation of ovariotomy spoken of in a hypothetical sense, and, according to my own observations, I have expressed no other opinion since my arrival in this city on each occasion the subject of ovariotomy has presented itself in the medical conversations I have held with different confréres. In my article I have reproduced this opinion, which, as I have said, was not strange to me, because while in Paris, I was present at similar debates, and it is nothing improbable then, that at San Francisco, a part of the physicians should hold the same ideas. I do not believe that Dr. McNutt could imagine that I could give him a list of names. I can only assure him that his name would not figure in such a list because I have never had the pleasure of holding a conversation with him on scientific subjects. I cannot understand the reason why Dr. McNutt could attribute a greater value to the opinion of the Board of Health, than to that of any surgeon. Has the Board of Health an eloquent list of statistics in ovariotomy to present to me? In case that a debate on this subject should arise in any medical society

and the authority invoked by Dr. McNutt, viz.: the *Board of Health*, should be present, what would be the peculiarly valid arguments it would be able to expose? I think that its force of argumentation could not be either more authoritative or more persuasive than that of any personal opinion given by a surgeon on this subject. In conclusion, I can only assure my estimable confrére, Dr. McNutt, that my personal opinion relative to ovariotomy practiced in San Francisco, is that we cannot attribute to any influence of the climate the success or failure of the operation.

Cordially yours,

DR. ANDREI.

In our quack-infested city we must, of course, expect to suffer the inconveniences arising from the presence of such bad company; and in no way is this more manifest, than when some medical man publishes for the benefit of the profession a discovery which has been of service in his practice, in the hope of benefiting suffering humanity. No sooner were the medicinal values of *Eucalyptus* given to the public, than a patent medicine was constructed, and the country flooded with handbills announcing that all the ills to which flesh is heir, were curable by the new agent. No assurance was given of its strength or proper preparation. That was secret and patented, and the "Dr." was the only one to benefit by it. We sought a certain strength and reliability, and knowledge of the formula and mode of preparation, all of which was given, and can be obtained by any physician, with samples of the "Fluid Extract of *Eucalyptus globulus*," and cigarettes of the same, from the laboratory of Messrs. James G. Steele & Co., No. 521 Montgomery street. The fluid extract represents therapeutically the fresh leaves, and diluted with sweetened water or milk, presents a medicine far from disagreeable to the taste of the patient.

The cigarettes have been prescribed by several of our resident physicians in cases of asthma, etc., with considerable success, great relief having been produced after a few inspirations of the smoke, which, by the way, diffuses quite an agreeable odor through the apartment.

R. R. Fares to the Session of the State Medical Society.

IT was expected that the usual arrangements could be made with the C. P. R. R. for a return ticket free to all delegates to, and members of this society, on the occasion of its next annual sesion in Oakland on the ninth prox. In reply to a communication from the secretary of the committee of arrangements, the proper authority announced that he was instructed to deny the application. Inasmuch as the C. P. R. R. owns all the approaches to Oakland, excepting by private conveyance, it follows that members and delegates must pay full fare, in order to enjoy the pleasure of attending the session. We infer that the privilege of half fare has been abused.

The *State Medical Society* will convene at Broadway Hall, Oakland, at 10 A. M. on the 9th of October, and continue in session for two days. The committee of arrangements have decided on the following arrangement for the sessions, viz: 10 A. M. to 1 P. M., 2 P. M. to 5.30 P. M., 7 to 10 P. M.

From information already received, papers may be expected from Drs. Logan, Oatman, Nixon, Taylor and Hatch of Sacramento; Dr. Pond of Napa; Dr. W. P. Gibbons of Alameda; Drs. Van Wyck, Cushing and Pinkerton of Oakland; Dr. Todd of Stockton; Drs. H. Gibbons, Stout of San Francisco; and Drs. Jno. Le Conte and Carr of the University, and others. We are also informed that the Alameda Co. Medical Association intend entertaining the members and delegates on the evening of adjournment. All the members of the regular profession in good standing, throughout the State, are cordially invited to be present, and those who are not members of the society can become such by exhibiting their diplomas to Dr. E. S. Carr, chairman of the Board of Censors, who will nominate them for election. It is earnestly to be hoped that there will be a full attendance, as the meeting promises to be of unusual interest.

We apologize for the tardy appearance of the LANCET this month. A very serious illness in the family of one of the Editors has prevented his coöperation, and the mass of the work has fallen on the other, who, by reason of inflammation in the eyes, has been compelled to do his work by day only, in addition to such professional duties as required his services.

Miscellaneous.

Proceedings of the Alameda Co. Medical Association.

OAKLAND, SEPT. 2, 1872.

Present: Drs. Babcock, Bamford, Cushing, Fish, Gibbons, Holmes, Kittredge, Jno. LeConte, Parson, Pinkerton, Trenor.

In the absence of the President and Vice-President, Dr. LeConte was called to the chair. The minutes of the last meeting were read and approved. Dr. Pinkerton, chairman of the sub-committee on "Diseases, etc.," reported for the month of July, as follows, viz: "16 deaths have occured in this city; one death is reported from Alameda. 30 cases of disease have been recorded in the "Record of Vital Statistics."

These are classified as follows:

	Deaths.		Recoveries		Totals.	
ZYMOTIC—		10		13		23
Miasmatic	5		11		16	
Dietetic	5		2		7	
CONSTITUTIONAL—		1				1
Tubercular	1				1	
LOCAL—		2		11		13
Nervous			1		1	
Respiratory			1		1	
Digestive	2		6		8	
Generative			2		2	
Locomotory			1		1	
DEVELOPMENTAL—		3		6		9
Children	2				2	
Women			6		6	
Age	1				1	
NOT CLASSED—	1	1			1	1
		17		30		74

Of the 17 deaths, 8 only are certified to by the members of the Association, whereas 9 of the certificates are filled out by irregulars and non-members. Ages of those deceased:

8	under	1 year.
5	between	20 and 30
2	"	40 and 50
1	at	60
1	"	70
17	total deaths.	

On motion the report was received and placed on file.

Dr. Trenor read the following paper:

Mr. President and Members:—The desire of seeing some step taken by the medical profession tending to place its members in a more dignified and worthy position when called upon to appear in courts of justice in their professional capacity; and the absence of any enactment or provision whatever, either in the Code of Ethics of the American Medical Association, or by our State or local societies, calling upon medical men to assert and maintain their professional rights under these circumstances, induces me to request the attention of this society to the subject, in the hope that it may take the initiative in some action which will compass the desired end. Physicians when called to testify in court as medical experts, are apt to excite ridicule as a class, to a great extent, from the fact that it is not considered necessary to summon as skilled witnesses only those who are really experts in the particular question in medicine or surgery requiring elucidation; but every physician holding a diploma being in the view of the law an expert in all matters appertaining to his profession, the testimony of any physician whose ideas may chance or may be induced to favor either side in any case, even though he be utterly unskilled in the question at issue, carries as much weight with the court, or at any rate with any ordinary jury, as the opinion of the most competent expert. No matter if all true experts in their particular branch of practice agree in opinion upon any question before a court, a smart attorney can usually obtain just as many physicians willing to swear to a directly opposite opinion, and thus not only bring the medical profession into contempt but use it in order to defeat the ends of justice. What is required in order to rectify this irregularity and inefficiency in the administration of justice, and at the same time elevate the status of the profession in the public estimation, is some rule which will take away

from lawyers the temptation to summon a cloud of so-called experts, as if to establish by weight of numbers a point upon which the weight of authority may be against them, and make it to their interest to summon as few as possible, who would therefore probably be selected for their skill and reputation in their speciality.

Now it seems to me that this can be effected by the medical profession itself, acting as a body through its local and State organizations. There is a well-marked line of distinction between common or ordinary witnesses and skilled witnesses or experts. The former can only testify to facts in a particular case that are within their own knowledge, that knowledge which comes to them from the operation of one or more of their five senses. Their *opinion* is inadmissable as evidence. Physicians may be, and often are, called to the witness stand simply as common witnesses, in which case their profession gives them no privileges or immunities, and their evidence has no value greater than would be attributed to that of any equally intelligent layman, and they are *compelled* to testify as a part of the general duty that each citizen owes the State as a matter of course. This is the status of an ordinary witness. His value depends chiefly upon his accuracy of memory, his coolness and acuteness of observation, his freedom from bias, and his general intelligence. With the skilled witness the case is different. He is not generally required to testify as to what he knows, but as to what he thinks. He may, and usually does, know nothing whatever about the matter actually on trial; but he is given a supposed case, a case in which certain premises are agreed upon by the contending counsel, and upon these premises he is asked to found an opinion for the benefit and guidance of the court or jury. To quote the words of a profound writer: "When he takes his place as an expert before a court, a legal paradox is instituted in his behalf, by which he is allowed to testify, not to what he knows, but to what he believes, or forms an opinion upon, based necessarily on probabilities of analogy as well as experience. His testimony becomes a generalization of facts, by means of which he undertakes to explain certain phenomena, or particular instances, as deductions from a law of common authority and government over such facts. He first generalizes, and then abstracts, and his opinion expresses the degree of agreement between a general law and the particular subject of its authority. And inasmuch as, in the government of the physical universe we have constantly disturbing forces to modify the action of individual laws, there will ever be innumerable *instantiæ migrantes*

upon which to posit exceptions, and thus complicate the problems given him to solve. It is the best test of the value of his experience, that he is able to discover the seminal principle involved in the inquiry, to trace it through the most devious ramifications, recognizing its centric power through all external forms of expression, and, by a process of mental chemistry, analyzing all its combinations, both quantitatively and qualitatively. Through such steps alone can he rise to a satisfactory interpretation of the phenomena of nature."

In view of the immense erudition required to make a *skilled* witness in medicine, it follows that the high and responsible position occupied by the medical expert before courts of justice, renders it indispensably necessary for him to possess the greatest amount of proficiency in those matters about which he is called to testify.

In his ignorance of the actual merits of the case before him, he can only go back to general principles, and to the teachings of his experience to enable him to deduce reliable conclusions from the data set before him. These may be either in the form of a suppositious case, agreed upon by the opposing counsel, as fairly representing the case at issue, and upon which his opinion is asked, or he may be required to sit and listen to the whole testimony in the case, upon which, *supposing this testimony to be true*, he gives his opinion. His testimony is not *demanded* by the State, as is the testimony of a common witness, whose knowledge of the facts as they occurred, is absolutely necessary to the furtherance of the ends of justice; but he is selected as a matter of preference by counsel on one or the other side, because his skill, experience, erudition, which are his private property, the accumulations probably of years of toil, and the result of the expenditure of capital of time and money, as much as are the real and personal property of the merchant or banker, are of value in assisting court or jury in dispensing justice. As well might the court take possession of the building erected by, and belonging to a private individual, wherein to convene court and try cases, without paying therefor, as take the skilled knowledge of the expert, his private property, for its use without compensation. As well might a coroner demand that any physician whom he may elect to call upon, should make a post mortem examination, either the ordinary one, or chemical, or microscopical, without payment. It is therefore evident that a medical expert is in every case entitled to pay for his professional opinion delivered in court, and his opinion being his own private property, he cannot be called upon to part

with it, unless first a receipt, or assured of the receipt of a proper remuneration. This is not only his right, but it is his duty. It is only the poor who have a claim upon our charity; the State is always able to pay. It is unfair, and opposed to the code of ethics, for a physician to attend gratuitously to those able to pay; and the State being eminently able to do so, it is proper that State and local societies should determine, just as they do in the case of charges made in private practice, what would in every case be a just and fair remuneration, which it should be made incumbent upon a physician to demand for his professional opinion delivered in court. The client, the State, is rich, and the fee ought to be proportioned to the ability of the party to pay.

If the State Society of California, could be induced to take action in this matter, so as to induce all our medical men to work in unison to carry it out, there can be little doubt that a highly desirable result could be attained. In the first place, a law might be passed, distinctly recognizing the now only tacit right of physicians, to charge for their testimony as experts, whatever fee they might think fit, and in the next place, by enactment of local medical societies, this fee might be fixed at snch a figure that the consideration of expense alone, would operate to induce counsel in a case to summon but few experts, and these, therefore, would be selected for the influence upon the court, derived from their fame and ability. As a result of all this, we would see chiefly skillful, leading and well-known members of the profession called to testify in court, to the greater honor of the profession, and the better serving of the ends of justice.

Believing that the object here sought, is a most desirable one to attain, and that it can be best effected in the manner I have indicated, I beg leave to submit the following motion, viz.:

"That a committee of three be appointed by the chair, to draft resolutions, expressing the sense of this association, upon the matter of compensation for medical experts, and urging action by the Legislature upon it. Also that these resolutions be communicated to the State Medical Society, and that our delegates to its next annual meeting, be instructed to request its coöperation."

This motion was seconded and carried unanimously. The chair appointed as such committee, Drs. Trenor, Kittredge and Carr. Quite a lengthy discussion followed, in which the very general desire was manifested to see the profession freed from the disgrace of any more such "expert" testimony, as has lately been given in criminal trials in this State.

Attention was called to the fact that amendments to the Constitution and By-Laws, would be brought forward at the next meeting. Drs. Carr and Coleman were appointed to prepare papers for the consideration of the members, and on motion, the association adjourned to 7th October, at 1 P.M.

Meeting of the San Francisco Medical Society, Sept. 10th, 1872.

After the usual preliminaries Dr. Pigné Dupuytren reported a case which had entered the French hospital some months ago. A man aged about 52 years, presented a tumor on the left side of the thorax. There was no pulse perceptible in the left radial artery; the veins of the neck were largely developed; there was no difference in the size of the two sides of the breast; no auccultatory signs of difficulty; the respiratory sounds were everywhere perfect. A light *bruit de souffle* however could be detected on close examination of the left side, and the pulse in the left carotid could not be detected. A diagnosis of aneurism of the aorta at the origin of the subclavian was made. Fifteen days ago Dr. Soulé examined the case in consultation and agreed with Dr. P. in his diagnosis; at this time in addition to the symptoms above mentioned the patient could not swallow solid food, but drank large quantities of beef tea. There was also considerable œdema of the lower extremities and he had violent headache especially at night. The breathing was also difficult. Day before yesterday (the 8th inst.) he died. Dr. Soulé assisted at the *post mortem* and presented to the society the tumor which embraced the arch of the aorta. It was extremely large and had made pressure an the subclavian artery, and the trachea and œsophagus, thus explaining the inability of swallowing solid food as well as the difficult respiration. A very large coagulum of organized fibrin more than two inches in thickness existed in the tumor, which upon being cut through presented successive layers of a firm fibrinous mass, the whole being covered or enclosed by the true arterial walls considerably hypertrophied. Dr. Pigné added that he had seen a number of analogous cases in the museum at Paris, some of which were much larger and contained bony as well as fibrinous deposits.

Dr. Gibbons mentioned a case which had occured under his care in the city and county hospital, had suffered from asthma which was traced to disease of the large arteries. A rasping double sound could be heard with the systole. The movements of the heart and arteries could be plainly seen on the naked chest and arms as far as the elbows. The patient assumed the peculiar position often noticed in persons suffering from cardiac disease.

The subject for discussion chosen at the last meeting viz. vaccination and re-vaccination now being in order:

Dr. Bates said that he wished to give his reasons for objecting to certain arguments advanced at a former meeting in support of a series of resolutions which had been passed by the society and which were embodied in Dr. Whitney's paper (Published in the August number of the LANCET.) read before the society on that occasion. He did not think this subject should be passed over lightly and that although he did not wish to annihilate the opinions of any one he thought the best authorities would bear him out in certain principles.

First.—It is an established principle that vaccination is a preventive of variola.

Second.—There is no proof of vaccination excepting re-vaccination, and that re-vaccination is always proper.

Third.—He did not believe that we have any positive proof that disease was propagated to any extent by proper vaccination. He did not advocate vaccination at stated periods, but persons should he re-vaccinated as often as there is danger, even every six months if necessary. The Doctor here read a passage from Dr. Wood (Theory and Practice of Medicine), to the effect that as varioloid is frequent during an epidemic, it is proper to re-vaccinate in order to prevent disease, and that vaccination during such an epidemic is more effectual.

Also in a report by Mr. Sears to the Academy of Sciences, published in Braithwaite's Retrospect, it is stated that re-vaccinnation should be practised during an epidemic.

In Niemeyers' work it is stated that in spite of vaccinnation and re-vaccination a large proportion of subjects are exposed to the influence of contagion, and therefore physicians should re-vaccinnate. Other authorities, including Dr. Flint, were cited to the same effect, and the Doctor mentioned a number of singular cases in his own experience, from which he concluded that while no harm is liable to be produced, it is proper to re-vaccinnate as frequently as danger from infection is present, and he thought it wrong to tell the community that it is safe to vaccinnate only at

stated periods, and that many a life might be saved and a loathsome disease averted, by the prompt employment of a simple and harmless measure when circumstances indicate its propriety.

Dr. Pigné Dupuytren, Dr. Whitney and others addressed the society opposing to the remarks of Dr. Bates, the same line of argument as given in the last report, and the time for adjournment having arrived without any definite or unanimous conclusion being made, the discussion was dropped, to be resumed probably when the next epidemic suggests it.

The following extract may be interesting as referring to the subject matter of the discussion in the report immediately preceding.—Ed.

The Treatment of Small-pox by Vaccination and the Injection of Lymph. By R. C. FURLEY, L.R.C.S.

The doctrine universally held, that vaccination will be of "no use" if delayed till five days after the inhalation of the germ of variola, I think, is erroneous. For some time past I have been in the habit of vaccinating every case of small-pox that has come under my care; and the result, as I show, is very encouraging, and seems to indicate that vaccination is not only prophylactic but *curative*. I have found, however, that although the ordinary process of vaccination by scratching the arm is sufficient to modify the disease in infants, it is almost inoperative in adults. After having discovered that the ordinary process was almost useless in grown-up persons, I adopted the method of injecting lymph by means of Dr. Wood's hypodermic syringe. This instrument I also found occasionally to fail, because on passing the wire through the needle after the operation to keep it clear, I have found it eject the lymph which I had hoped had been in the blood. This, I am afraid, has been the cause of two otherwise unaccountable failures out of sixty cases. How to obviate this source of fallacy occupied my thoughts for a considerable time. At last, however, I succeeded in inventing an instrument that promises to transfer lymph directly from the tube in which it is contained into the circulation. It consists of a hollow needle with a bore sufficiently large to admit of the introduction of a vaccine

tube. The process consists in passing the point of the needle, charged with a tube of lymph, under the skin, and blowing the lymph directly into the blood. I have purposely described this minutely, in order that, if any of my brethren do me the honor of verifying the results of my treatment, they may not commit the errors which experience has pointed out. It would occupy too much space to describe many cases; I shall therefore only give three to illustrate the effect of the treatment at the different periods of life—infancy, childhood, and manhood.

CASE 1. Baby C., aged one month, and unvaccinated. When first seen, the papular eruption was over the face, hands and legs. There had been three cases of small-pox in the house. One had been sent to the small-pox hospital, where the mother had visited him. I ascertained that this was really the case from the resident physician, Dr. Saxby. I vaccinated the child at once. Next day, when I called, the eruption had entirely disappeared, with the exception of two papules on the face, which were now more prominent. On the third day these two papules disappeared, and a fresh crop of twenty-four, chiefly over the head, made its appearance; and these became hard and did not fill like ordinary vesicles. In three days these had also disappeared. The vaccination itself did not show any signs of taking till the tenth day, and was matured on the thirteenth.

CASE 2. M.R., aged thirteen years, vaccinated in infancy, and whose sister had died of small-pox a week before. I was called in on a Saturday, and found her face considerably swollen, and the papular eruption on the hands and forearms. I at once *injected* two tubes of lymph into the arm. On Sunday the eruption had disappeared from the hands and arms, and appeared on the feet. On Monday it had spread up the legs and trunk. On Tuesday it had entirely gone away, and there was nothing to be seen but the inflamed areola at the point where I had injected.

CASE 3. J. W., aged thirty-four, a stableman of dissipated habits, and never vaccinated. I saw him on the second day of the eruption, and injected two tubes of lymph. The case, instead of being confluent, as might have been expected, was discrete, except at the alæ of the nose. He went on very favorably, and the eruption began to desiccate on the ninth day instead of on the fifteenth, eighteenth, or twentieth. There was no areola at the point of injection.

I think these cases, selected from a number of such, show that there is, at least, a germ of truth in my statement that vaccination is curative of small-pox. I find that the treatment is much more successful in the youthful than in the adult period of life; and I am beginning to think that this

arises from adults requiring, as it were, more of the remedy. It is also more effectual the earlier the operation is performed. I have usually found that the vesicles did not attain the size they do when the disease is allowed to run its course; they do not often become pustular, and desiccated earlier.

No doubt I have had failures and deaths; the latter five in sixty cases, in three of which I did not look for recovery from the first, on account of other complications, and two were unlooked for; all were females—a fact of itself of some significence. I reserve for a future communication a detailed summary of all my cases; meantime I trust I have said sufficient to encourage my brethren calmly to investigate the subject.

I should have mentioned that the instrument I employ for transferring the lymph directly into the blood was made for me by Mr. Young, cutler, North bridge.—*The Lancet.*

LAURISTON PLACE, EDINBURGH, May, 1872.

We insert the following with pleasure. Coming from such eminent authority as Dr. Squibb it cannot but be of value to every practitioner. It is taken from the *Medical Record* of Aug. 1, 1872.

The Current Materia Medica.—Dr. E. R. SQUIBB made some interesting remarks before the New York Academy of Medicine (June 20th, 1872), from which we extract the following:

The various *extracts of meat* sold at the stores are of little value; there is not one of them, which is advertised, which will bear out the remark of Dr. Christison, "they arrest waste but do not keep up the supply." His impression is, that there is not as much against the use of solid food or aliment in disease as has been said against it. The stomach is not a chemical laboratory, "a kitchen for cooking food," as Abernethy wisely remarked. Food should not be subjected to the ordeal of chemists, as the fashion is.

Among the articles that have been introduced in the dietary department, and have taken a firm stand in the materia medica, is *pepsin*. Generally, however, patients have been in the habit of taking starch rather than pepsin. Once get up a reputation concerning a certain variety of this agent, the manufacturer has a good start for making money. Some specimens examined were good and others bad. The name of the maker is no guarantee, as it may be good at one time and poor at another. While the proprietor is looking after the money column, the manufacture is entrusted to another. The fresh supply of pigs' stomachs must come trom the western pork-markets.

The pancreatic emulsions and preparations of bismuth and pepsin, so fashionable now, cannot be recommended: bismuth and pepsin cannot exist together. Those fashionable mixtures of beef and iron—as Vinum cibi, Vinim cibi et ferri cum cinchona, etc.—are gross frauds; only money is in them. Hardly any cod-liver will pass muster except it is tasteless; and his impression is that many of these preperations are not cod-liver oil at all, only oil made up for the market. Good oils should neither be too dark nor too light, but of a medium color. The dark varieties are made of livers in a state of decomposition. There are good cod-liver oils in the market which come from Norway and Newfoundland. The reason that the Norwegian oil is less rancid than others is, because it is never made at a less temperature than fifty degrees; consequently decomposition is avoided. Oil, when in use, should be kept in a cool place, as a refrigerator, and after each dose is given the glass should be thoroughly washed. Small pieces of ice put in the doses of disagreeable substances, like cod-liver oil, render the agent almost tasteless. Those physicians who eschew the fashionable remedies take to the syrups, such as Aiken's syrup, etc. The lacto-phosphate of iron is based on fallacies like the others; but it is very taking, and is advocated by Horsford and others. Physicians are anxious to get solutions of phosphorus into the stomach, but before it gets there it becomes oxidized.

Another popular fallacy of the day is the use of sugar-coated pills or medical confectionery. Coroners have found these pills, after death, in the stomach and intestines, undissolved. Medicine should be given in such a shape that they will be quickly dissolved. It is not an easy matter to get the hard coat off the pills. Glycerine should be used in compounding pills, to render them soft. Pills made in this way are easily dissolved in the stomach. He has been astonished that Blanchard's pill has been so useful as has been stated—it being covered with a metallic coat.

Medicines in capsules are not to be advocated—they being not easily dissolved.

The use of various forms of divided medicines, particularly "The Divided Medicine Co.'s" preparations, is another fallacy. It is nothing new, but an old way of preparing medicines. This way of dosing might be good if the physician would put the medicine up, but to purchase these preparations of companies is dangerous pharmacy. * * *

Condurango, which received its aid from the State Department at Washington, D. C., has pretty much gone out. That department deserves the reprobation of the physicians of this country. Reports have come back to the discredit of its use.

MONTHLY REPORT OF DEATHS IN THE CITY OF SAN FRAN

By C. M. BATES, M.D., Health Officer. *No. of Deaths corresponding*

CAUSE OF DEATH.	Total	AGES.																SEX.	
		Under 1 year	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	Over 100	Unknown	Male	Female
I. ZYMOTIC.																			
Variola	2	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1
Scarlatina	2	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Diphtheria	7	1	1	1	4	..	..	..	..	..	..	..	..	..	..	..	..	5	2
Whooping Cough	2	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Fever, Enteric or Typhoid	7	1	..	..	1	..	1	2	2	..	..	..	..	..	..	..	..	4	3
Cholera Infantum	16	14	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	7
Pyæmia	4	..	..	..	..	..	..	1	1	..	2	..	..	..	..	..	..	2	2
Other diseases of this class	11	..	1	1	1	..	..	2	3	3	..	..	..	..	..	..	..	7	4
II. CONSTITUTIONAL.																			
Cancer of Uterus	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Cancer Undefined	2	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	2
Cancerous Ulceration	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
III. TUBERCULAR.																			
Phthisis Pulmonalis	37	..	..	..	..	1	3	7	11	9	6	..	..	..	..	..	..	21	16
Hydrocephalus	6	4	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	4
Other diseases of this class	3	1	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	3	..
IV. LOCAL.																			
Congestion of Brain	3	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	2	1
Meningitis	14	4	2	1	1	..	..	..	3	2	1	..	..	..	..	..	..	8	6
Concussion of the Brain	2	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	2	..
Apoplexy	5	..	..	..	..	..	..	..	1	1	3	..	..	..	..	..	..	3	2
Paralysis—general	6	..	..	..	..	1	..	1	2	..	..	1	..	1	..	..	..	3	3
Tetanus	3	1	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	2	1
Other diseases of this class	12	3	2	..	2	..	..	..	4	..	1	..	..	..	..	..	..	8	4
V. CIRCULATORY SYSTEM.																			
Hypertrophy of the Heart	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..
Valvular Disease of Heart	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..
Heart Disease, undefined	6	..	..	..	..	..	..	1	..	3	1	1	..	..	..	..	..	3	3
Other diseases of this class	3	..	..	..	..	..	1	..	..	1	..	1	..	..	..	..	..	3	..
VI. RESPIRATORY SYSTEM.																			
Laryngitis	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Bronchitis—Acute	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Pleurisy	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
Congestion of the Lungs	5	2	..	..	1	..	..	..	..	2	..	..	..	..	..	..	..	5	..
Pneumonia	11	..	..	1	..	..	..	..	2	1	3	3	..	..	1	..	..	7	4
VII. DIGESTIVE SYSTEM.																			
Gastritis	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Enteritis	9	4	2	1	..	..	..	1	1	..	..	..	..	..	..	..	..	6	3
Cholera Morbus	2	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	1	1
Jaundice	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Spleen Disease	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..
Cirrhosis of Liver	3	..	..	..	..	..	..	..	..	..	1	2	..	..	..	..	..	1	2
Other diseases of this class	6	1	1	..	..	..	1	..	1	..	2	..	..	..	..	..	..	5	1
VIII. URINARY SYSTEM.																			
Bright's Disease	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Other diseases of this class	3	..	..	..	..	..	..	..	..	..	1	2	..	..	..	..	..	3	..
IX. DEVELOPMENTAL.—CHILDREN.																			
Premature Birth	5	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3
Cyanosis	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Convulsions.—Infantile	10	9	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	4
Teething	4	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1
X. OLD AGE	6	..	..	..	..	..	..	..	..	1	1	1	1	..	2	..	..	2	4
XI. NUTRITION.																			
Atrophy	10	9	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	3	7
Inanition	10	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	5
Debility, General	4	3	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	3	1
XII. ACCIDENTAL	3	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	3	..
Murder and Manslaughter	2	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	2	..
XIII. SUICIDE	3	..	..	..	..	..	..	..	2	..	1	..	..	..	..	..	..	3	..
XIV. NOT SPECIFIED OR ILL DEFINED	21	..	..	..	..	..	..	9	4	4	2	1	1	..	..	..	..	18	3
TOTALS	284	81	17	9	12	2	7	31	45	31	29	14	2	1	3	..	..	170	114
XV. STILL BORN	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15	8
XVI. BIRTHS REPORTED	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	32	[illegible]

CISCO, CALIFORNIA, FOR THE MONTH OF AUGUST, 1872.

Month of 1866, 219; 1867, 193; 1868, 317; 1869, 268; 1870, 281; 1871, 247.

RACE.			WARD.															NATIVITIES.			
Caucasian	Mongolian	African	1st Ward	2d Ward	3d Ward	4th Ward	5th Ward	6th Ward	7th Ward	8th Ward	9th Ward	10th Ward	11th Ward	12th Ward	Public Institutions	Casualties	Suicides	For'gnCo'ntr's	Atlantic U. S.	Pacific U. S.	Unascertained
	2					2												1		1	
2							1					1								2	
7				2									4	1				1		6	
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247	31	6	7	22	2	36	2	17	12	18	14	32	43	20	52	5	3	133	31	119	1
33																					
62																					

this enviable position he was destined to occupy but for three years, as his southern friends, ever watchful for the character and advancement of their literary and scientific institutions, never ceased their exertions until they finally succeeded in bringing back their favorite teacher and replacing him in the chair he had so long and so ably filled. So elevated a character had his abilities as a medical instructor and practitioner now attained, that he was eagerly sought after by the leading medical schools of that period, wherever a vacant professorship had occurred or was likely to take place. It was while in this state of the professional mind, that in 1853 on the demise of Dr. John K. Mitchell, an exceedingly able teacher and who had filled the chair of Practice of Medicine in the Jefferson Medical College in Philadelphia for many years with great ability, that Dr. Dickson was at once offered and urgently pressed to accept the vacant professorship in this institution, which at that time held the second rank among the medical Colleges of the country, with the thorough conviction, that with such an accession to its medical staff, its already high reputation would be very materially enhanced. This professorship was therefore pressed upon Doctor Dickson so earnestly and under such peculiarly favorable circumstances both by the trustees and professors of the College, and his friends and his family; and influenced, no doubt, by his early recollections and associations, that here was the foundation, the starting point from whence arose the high professsional character he had attained, that he finally consented again to leave his native place and remove to Philadelphia with the laudable ambition of earning still higher honors and rewards, where the first germ of his professional career had been developed; and here, too, closed with his earthly existence, a long arduous and distinguished professional life, in the seventy fourth year of his age.

It was not only as an accomplished and popular teacher that Dr. Dickson had attained such an enviable distinction, but as a writer also, of clsssic purity and refinement. He contributed several works of great merit to the profession and much useful and interesting miscellaneous matter to the public. His manual of Pathology and the Practice of Medicine has wide circulation and very general approval. So likewise his Elements of Medicine was received by the profession as a work of very great merit. Essays on Pathology and Therapeutics; Essays on Life and Sleep &c. &c. As a speaker too, either in public or in private, he was fluent and forcible, descriptive and animated, and whether in the lecture room or in the parlor his influence as a speaker was exceedingly fascinating. J. T.

We insert the following from the editorial of the *Philadelphia Medical Times* of Sept, 2nd. It expresses the views of a large number of our professional brethren in the east, as shown by our exchanges. We cordially endorse the editorial article and agree with the main points in the article from the *Boston Journal.* Ed.

Re-Organization of the American Medical Association.

We believe we express the opinion of the majority of the thinking men in the profession in this country, when we say that the American Medical Association has lamentably failed to accomplish the great ends which its projectors had in view. It is not, and never has been, in any sense, a body representative of the medical men of America; it has not now, and never has had, any power either with the medical schools, with the profession, or with the public. As the result of the combined efforts of the delegates, this mountain is every year, like an Irish laborer's wife, delivered of a very large and homely infant, in the shape of a volume of Transactions, which is never read after it leaves the printing office.

Neither in its meetings nor in its publications, then, does the Association wield any influence, *because* it is not representative of anything; for herein, we believe, lies the root of the trouble. Can it be doubted that the moral and intellectual force of the medical profession in this country, if put forth through a medium which should concentrate and fairly express it, would command respect wherever its influence reached?

In the *Boston Medical and Surgical Journal* of July 25, we find a plan so strongly commending itself to our favor, that we desire earnestly to call the attention of our readers to it. After mentioning some suggestions previously made in the *New York Medical Record,* viz.: That the Association should hold its sessions with closed doors, that delegates should serve for longer terms, that the committees should be larger, and chosen more fairly, and that the Transactions should be abolished, these suggestions the writer of the *Boston Journal* thinks might in time be carried out, after the following plan of organization has been put into thorough working order.

"In future, then, let the Association have, or rather consist of, a working Board, a true representative body, of limited numbers, membership in which shall be the reward of professional ability, usefulness and eminence. Two from each State would be a sufficiently large number for all

practical purposes. Let this Board be called the National Council of the American Medical Association. Let this Council meet once a year at some convenient place, say Washington, or as the Board might from time to time determine, and continue in session sufficiently long to attend to all legitimate business, scientific or professional, everything, in fact, in the interests and needs of the profession throughout the Union—giving such advice, recommending such rules, issuing such 'Transactions' as would be for the elevation and advancement of the whole profession. Let the term of service for these two National Councillors be six years, one to be chosen every three years; and, to place them as much as possible above temporary influences and purely local interests, let them be chosen by a State Council, which, for this and other duties, may be constituted and elected as follows:

"Let each of the several State Societies choose from its most experienced and best-qualified men a number equal, say, to that of the State's Representatives in Congress (one-third each year), and, as far as convenient, to obtain representation of all parts of the State—one from each Congressional District. Let these hold office for three years, and form what may be called the Local or State Council of the American Medical Association. They could meet yearly, or oftener if found useful, to consider, primarily, professional matters which in the State are, or may be, of National concernment, and to make selections of such as should be carried before the National Board—in short, to do all the work of a State Committee. Each of these State Boards should, once in three years, choose one of the National Councillors, as before mentioned, from their own Board or at large, wherever the best qualified could be found. As in these State Board the chief preparative work should be done, while its revision and completion should be left to the sober judgment and more deliberate action of the National Board, the National Councillors might have seats in the State Board—without vote—in order that they might know all the arguments and circumstances relating to any case, and the wishes of the State Board, in full, to guide their own action in the National Board.

"The numbers in the several State Boards would be sufficiently large and well proportioned. For a national council seventy or eighty, thus selected, would be ample; and the length of the term of service would enable them to preserve a continuous and consistent plan of work, while half of their number coming new every three years would prevent any lapsing into indifference or negligence. The influence

of the State Councils, as indicated, most fully impressing their own wishes and the wishes of their immediate constituents on individual National Councillors, would, through the National Board, give a voice to the profession such as was never before known. It is not necessary to give other details at present; such could easily wrought out, the plan itself being quite feasible.

"As for 'ways and means,' such could be arranged for without difficulty. The addition of a dollar (or even half of that sum) to the annual assessment in the State Societies, would give more than enough for all expenses, including, if thought best, mileage and pay of the National Board while in session.

"Should the plan work successfully, as we have no doubt it would, eventually the State Societies might, if then thought advisable, without changing name or management in any other respect, become branches, and their Districts sub-branches, of the National organization, retaining all the desirable features now possossed; and thus give to each of their members an additional bond of union with the whole profession in the country, and an additional *title* to the respect of the community at large.

"In such event, the National Council could arrange for general meetings (every year or second year, and in different parts of the country) for all members who might choose to attend. At these meetings there might be orations in medicine, in surgery, and in other departments, reports, communications, discussions, and consideration of other matters of professional interest; while all the evils of the present organization would be avoided, by the exclusion of all matters of business or control, which would continue in the hands of the National Council, and not be agitated at any of these general meetings.

"Under such a system, as we have described, there would be no difficulty in getting the right men for these right places for them. To be a member of the State Council would be worthy of the laudable ambition of any aspiring physician; to be one of the National Board would be held by all as the highest professional honor the profession could confer upon eminent talent and well-tried fidelity to its interests.

"Under such a plan the American Medical Association would soon become 'a power' in the land, and connection with it, even as a member merely, an object of just pride with every high-minded and well-educated practitioner throughout the country."

Book Reviews.

LECTURES ON AURAL CATARRH; OR THE COMMONEST FORMS OF DEAFNESS AND THEIR CURE. By PETER ALLEN, M.D. (Delivered at St. Mary's Hospital, Edinburgh.) New York, William Wood & Co.; San Francisco, A. Roman & Co.

This little book, of 271 pages, is one which the general practitioner should not overlook, as it treats of diseases but little understood, in a plain, rational manner. The author's idea has not been to present a complete treatise on diseases of the ear, but only a consideration of those diseases which affect the middle ear, and this includes those affections to which the mucous membrane, from the pharynx to the cavity of the tympanum, are liable, and their importance cannot be over estimated. The aurist, as a specialist, is rarely called to the side of an infant, and all the diseases to which it is liable, are left with the family physician, and to show the importance to him and to his patrons, of some knowledge of diseases of this region, we quote as follows, from *p.* 226 of this work:

"At this point, I cannot help expressing my belief that many fatal cases of scarlet fever are, in reality, deaths from abscess or other diseases of the brain, continued from the tympanum, but which disease was, during life, unrecognized by the practitioner. Such a fact has been ascertained by the discharge from the ear being accidentally discovered after the fatal event of the cerebral affection." Further on, *p.* 228, the language of Dr. Pilcher is used; he says: "that he need not add that these desperate cases are necessarily attended by complete deafness, and in young subjects, entail subsequent dumbness. Scarlet fever becomes the most fruitful source of deaf-dumbness; far more fruitful even than congenital defects, and, perhaps, more fruitful than all the other causes combined."

Dr. Werden, of St. Petersburg, has published the result of the examinations of the auditory apparatus of 80 infants, all foundlings, the ages ranging from 12 hours to 14 months. 36 died of *pneumonia*, 16 of *atelectasis congestiva*, 11 of *hyperæmia meningum*, 8 of *œdema meningum*, 3 of

meningitis suppurativa, and so on. His first conclusion from the examinations is, that

None of the children who had normal ears died of pneumonia or meningitis. In only 14 ears did he find no very marked pathological change, *viz*: 17½ per cent. In conclusion 6th, he states that "Purulent inflammation is among the most important and frequent diseases of the infantile auditory apparatus. It occurred 36 times in the cases under consideration. More than half the cases of suppurative inflammation of the middle ear were accompanied by consecutive affections, which were often the direct causes of death."

These statements are certainly alarming, and will be surprising to the majority of physicians. We can confidently assert that this little volume will supply their wants to a great extent, as to the therapeutical indications of diseases of this class, as well as satisfy their curiosity.

A System of Surgery.—By S. H. Gross, M.D., L.L.D., etc., etc. 5th Editon, 2 vols., pp. 2268. Philadelphia, Henry C. Lea. San Francisco, A. Roman & Co.

We have received these volumes from the publishers, and can only repeat, what has been the universal voice of the profession since the issue of the first edition in 1869. Our expression must be that of praise. There are some points, such as on the pathology and treatment of veneral diseases, on which we may not think that Dr. Gross agrees with the most advanced specialists, but he tells us in the preface that his "work should, therefore, be regarded as embodying the "results of a large personal, if not of a ripe experience, of "extensive reading and of much reflection, in a word, as "exhibiting surgery as I myself understand it, and, as I "have for so many years, conscientiously taught it."

We are informed that the author has devoted five years of labor to the work of revision; the amount of text is increased by four hundred and fifty pages. Several new illustrations have been introduced, and in fact the whole work has been re-written. The result, is an invaluable work, without which no library can be complete, and we take pleasure in commending it to our readers as a cyclopædia of surgery, from which information on every subject connected with the specialty can be derived.

1. On Amputation of Redundant Scrotum in the Treatment of Varicocele, illustrated with a new instrument, and--
2. Clinical Observations on the Dementia and the Hemiplegia of Syphilis. By M. H. Henry, M. D., Surgeon to the N. Y. Dispensary Dept. of Venereal and Skin disease. (Reprinted from the *American Journal of Syphilography and Dermatology*, July, 1871, January,1 872.)

We acknowledge the receipt of these two interesting monographs from the author, who is also editor of the journal from which they are reprinted. In the first paper, the different operations for the cure of varicocele, and the great inconvenience arising from the distended scrotum, are noted. As none of the many appliances advocated by different operators, have succeeded in affording relief, our author devised a pair of forceps, having double curved blades, notched to prevent slipping, and having fenestræ, to enable the surgeon to insert his ligatures before dividing the parts. It would be impossible to convey a correct idea of the instrument without the wood-cut in the monograph, but suffice it to say that it perfectly accomplishes its object in the hands of those who have used it, without being followed by untoward results. The instrument will doubtless soon find its way into the *armamentarium* of every surgeon, who would radically cure his patient suffering from the evils of varicocele.

In the second monograph our author reports two cases, one of Dementia and one of Hemiplegia, each owing its origin to syphilis, and appearing manifest at one year and one-half and six years respectively, from infection. The cases were remarkably well developed, and are reported to show the great readiness with which iodine is borne and the pressing necessity for its free and frequent administration. In one case 300 grains were given daily for a period of eight weeks, ending in perfect recovery and with no signs of Iodism.

The second case proved fatal seven years after infection, the result being hastened by very dissipated habits. An autopsy revealed a gummy tumor completely encircling the middle cerebral artery, the products of inflammation which tumor pressed on the artery, occluding its [illegible] and cutting off the brain supply of blood. We [illegible] these pamphlets to the perusal of our readers.

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U of M

DEFORMITIES OF THE NOSE.

Page 375.

three days after the occurrence, I lost sight of the case i

THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR OCTOBER, 1872.

Surgery.

Art. I.—*Deformities of the Nose.* By H. H. Toland, M. D., San Francisco.

Deformities of the nose which result either from fractures of the nasal bones or laceration and displacement of the cartilage which forms the septum, change the expression of the face more than any other injury, and when accompanied with much swelling, may not be detected until after the fracture has united or the cartilage has formed other attachments which produce deformities that have heretofore been considered incurable. The photograph represents a case of this character occurring in my practice, and which was operated upon about four weeks ago.

Case I.—Miss P. while endeavoring to light the gas, fell from a chair upon her face, in consequence of being exhausted from loss of sleep during the protracted illness of her mother. Twelve or fifteen hours elapsed before I examined the injured part, and then it was enormously swollen. The nasal bones were not injured, but it was not possible to determine what other difficulty had been sustained. Two or three days after the occurrence, I lost sight of the case in

consequence of the death of the mother and a change of residence. After living two years in New York she returned to San Francisco, about four months since, greatly disfigured on account of the nose being flattened, and the apex turned to the right side. She visited this city with the hope of having an operation performed that would remove the deformity, and in consequence of the great anxiety exhibited, I consented, being confident that the deformity would not be increased.

After having had the instrument, represented by the photograph made by Messrs. Folkers & Co., the cartilage was detached from the inner side of the nasal bones by a subcutaneous section with an ordinary tenotomy knife, the incision being made inwards and slightly downwards. A steel pointed hare-lip pin was then passed from above the incision through the portion that had been depressed obliquely, and escaped about an inch below the incision. Others were inserted in the centre of the nose—one a few lines above the other—and passed out on the side as previously stated, about half an inch from the extremity of the organ. The apparatus was then applied to assist the pins to overcome the lateral curvature. The pins were removed the tenth day, but finding that the newly-formed attachment was not sufficiently firm and extensive, another pin was passed from the centre of the nose through the cartilage and below the incision about half an inch, and brought out near the centre, but slightly to the right. This was allowed to remain until considerable inflammation was produced, and when removed, the appearance and firmness of the part indicated that a considerable quantity of lymph had been deposited, and organized, I think, sufficiently to prevent the recurrence of the difficulty. No deformity is now perceptible; the wounds produced by the insertion of the pins have healed, leaving only a very slight cicatrix; she will wear the apparatus at nights for several months.

CASE II.—I have now under treatment a boy ten years old, on account of a deformity resulting from a displacement of the septum—produced by falling upon the end of the nose. I found the septum displaced and occupying the left nasal

cavity, so as to prevent the passage of air entirely, and the mucous membrane on that side was inflamed. For the purpose of removing both the inflammation and displacement, as much lint wet with a solution of Monsel's salt was inserted as was possible and not producing too much pain, and then an apparatus, similar to the one used in the former case, was applied. The lint is changed every two or three days. He has suffered very little inconvenience from the treatment, and now breathes easily through the nostril when the lint is removed. The position of the septum is greatly changed, and now I do not entertain a doubt of the success of the treatment, provided it is continued.

The instrument is made of steel, and should it press unequally, the suffering part can be protected by the use either of lint or cotton.

ART. II.—*A Case of Necrosis of one third of the Seventh Rib.* By JAMES S. BAILEY, M. D., Albany, N. Y.

Several years ago, while living upon the Brazos, in Texas, a well-grown mulatto boy, fourteen years of age, was brought to my office for treatment. An examination revealed a fistulous opening through the sternal third of the seventh rib upon the right side, which seemingly communicated with the lung. When a probe was introduced, a severe paroxysm of coughing was induced, with expectoration of matter similar to that escaping through the opening externally. My diagnosis was necrosis of this portion of the rib, and that the lung had also become perforated by ulcerative suppuration, and that it had become united to the adjacent portion of the thorax. Complaint was made of a tearing sensation in this vicinity, upon taking a full inspiration.

It was a month before I saw his master, and in his absence I determined to give him a generous diet, and accordingly fed him from my own table.

During this interval he gained rapidly in flesh and strength; but still his cough increased, as did also the discharge of pus externally.

Upon my next interview with his master, I stated plainly my opinion, and recommended, as the only means of saving

his life, the expirpation of the necrosed portion of the rib. The risk of the operation was fully explained; also the benefit resulting, should it succeed.

The master gave his assent, should the boy be willing, which he cheerfully was, and after a few days' preparation, I proceeded to operate, assisted by Dr. N. N. Allen, of Hempstead. We anæsthitized him by the use of chloroform, and I made a free incision from the sternum, fully one third of the length of the rib, dissecting the integuments from the bone, which was found to be spongy, and, by means of a gouge, I succeeding in removing the necrosed portion of the rib, after which the cavity was filled with lint cotten, and the wound brought together with adhesive straps.

He came from under the influence of chloroform nicely, and, after the excitement incident to its inhalation passed off, he was quite comfortable.

The cough and expectoration ceased in the course of a few days, and the wound healed without an untoward symptom.

Two years elapsed before I again saw the patient; he had grown nearly to manhood, and was seemingly in the enjoyment of vigorous health, and during this period had not experienced the slightest inconvenience from this source. Seeley was an intelligent boy, and from him I obtained the following history of his case, which was corroberated by his master:

For a year previous he had been living upon a cotton plantation near the coast; was taken with pain in this region. A physican was consulted, who insisted that it resulted from a torpid liver. He was mercurialized, blistered, and kept upon an abstemious diet; was dosed every third night with a blue pill for several months. There was no improvement. Another physician was consulted, who confirmed the former physician's diagnosis, and approved of the course pursued.

In about six months from his indisposition the parts became tumefied and sore, and finally broke externally and internally, as he claimed, which was followed by loss of appetite and decline of flesh and health. He remained in this condition until his consultation with myself. The result of surgical performance was truly gratifying to the patient, master and physician, and, had it never been resorted to, he undoubtedly would have filled a premature grave—"gone where the good niggers go."—*New York Med. Journal.*

Institutes and Practice of Medicine.

ART. III.—*Neurological Studies.* By J. P. WHITNEY, M.D., San Francisco.

(Lesson First, concluded. Continued from page 263.)

Mental force is the highest mode yet demonstrated as exhibited by the human body, and its most complete individualized manifestation takes place, where the other functions of the system are most perfectly accomplished. Its powers are, therefore, in proportion to the healthful energy with which the great corporeal functions of nutrition and secretion take place. When the function of nutrition is badly exerted, the mental powers will be proportionally impaired. The sound mind requires for its manifestation the sound body. Philosophy admits what modern physiology has so nearly reduced to a positive demonstration—the absolute dependence of the mind upon cerebral change—that forces the circulation of arterial blood through its capillaries—that hastens the absorption of oxygen by the blood—then the blood must be properly constituted that it may absorb oxygen in the pulmonary capillaries—it can only acquire this proper constitution by the perfect assimilation of appropriate food. It is plain, then, that we are to expect the highest manifestations of mental power in those whose brains are best organized and nourished, and thus fitted to correlate all the forces contributed by the different organic functions into mental force.

Plasma even now lacks a complete chemical definition. If we say it consists of Carbon, Hydrogen, Oxygen and Nitrogen in certain proportions, no one can yet say what the essential definite proportions are which render it capable of manifesting vitality, nor can it be denied that vitality may be exhibited by organisms destitute of Nitrogen. Neither can we yet prove that even when composed of the above four elements, with the addition of sulphur and Phosphorus, it will spontaneously take on vital actions. Thus, whilst we must regard plasma as the "material basis of life," we know

nothing of vitality except as the result of correlated forces of plasma undergoing change.

What is the amœba? A particle of apparently homogenous jelly; though destitute of organs, it is a complete system of organs within itself, by the power it has of adaptation to varied uses or purposes; seizing food without special prehensile organs, reducing it without jaws, digesting and appropriating it without either stomach or absorbents; moving without muscles, and feeling without nerves; becoming, as occasion requires, all hand, all mouth, all stomach, all muscle, or, all nerve, with power to use any part or the whole of its substance temporarily for any of these purposes. In ceasing to be amœba, its parts may become organs devoted permanently to special purposes; or, without differentiation and evolution of parts, it may simply divide and thus propagate its kind; or, it may part gradually with its amœboid condition by becoming a more or less fixed part of a more differentiated structure. A non-nucleated particle of albumen, manifesting vitality, Harekel calls, *monera;* it can move from place to place spontaneously, can change its shape in many ways, can assimilate other portions of albuminous matter, and can multiply by division of its own body. It is said to do these things by virtue of its vitality.

Studying these bodies in the ancient series, the white corpuscle of the blood furnishes one of these protean bodies of protean composition, the study of which, in its origin, history and destiny, may afford important aid in the study of the histological obscurities of neurology. Among the interesting facts relating to these bodies are, their greater abundance in clyyle and lymph than in red blood—in the blood of boys than of men—in women when menstruating, than when not menstruating—and still more abundant in pregnant women. They are much more abundant in the blood of the hepatic vein than either in that of the hepatic artery or portal vein, and vastly more so in that of the splenic vein than in that of the splenic artery.

Some fifteen or twenty years ago, Claude Bernard proved by experiment, that irritation of the floor of the fourth ven-

tricle, or galvanization of the pneumo-gastric nerve in the neck, will produce artificial saccharine diabetes. Having previously proved that the liver formed glucose as well as bile, he adopted the vaso-motor theory of the organic nerves, explaining dilatation of vessels by palsy of these nerves, when, by dilatation of the hepatic vessels, the liver receiving an increased quantity of blood, an abnormal amonnt of sugar was produced and the superabundance was carried off by the kidneys, constituting saccharine diabetes. Pavy and others have shown, that excision of either of the cervical or the superior dorsal ganglia will have the same effect.

Aladoff and Cyon found, that by irritating the fibres of the annulus of Vieussens, white marks appeared on the exposed lobules of the liver, in the position of the branches of the portal vein and hepatic artery, immediately after the cessation of the irritation. They thought these spots dependent on contraction of the hepatic artery, under the influence of its vaso-motor nerves, which they thought were thus proved to arise from the annulus of Vieussens. Admitting the connection between the ring of Vieussens and the hepatic lobules, where the chemico-vital processes of bile and sugar formation are taking place, I think it quite as philosophical to regard the organic nerves connecting these distant parts as arising in the liver and terminating in the ring; and that their direct current of influence is from the lobules to the ring. Of this force, results of the chemico-vital changes involved in bile secretion and sugar formation. Bile and sugar are formed in beings which have no septum auriculoum. Whence in these the controlling vaso-motor influence to govern the capillary circulation in the hepatic lobules? Let us take notice of a few physiological and pathological facts susceptible of demonstration.

The portal vein distributes to the hepatic lobules, blood rich in hydrocarbon from the digestive tube. When this blood emerges from these lobules by the hepatic vein, it is found to be still rich in hydrocarbon, in the form of hepatic sugar, destined to undergo oxidation in the lungs in a physiological condition. Now, in the pathological condition

known as saccharine diabetes, this form of hydrocarbon passes off by the urine. (In cold blooded animals the kidneys carry on a portal circulation of blood received from venous sources.) The blood of the hepatic veins, rich in glucose, is poured into the ascending cava, just below the diaphragm. There are no valves between the mouths of the hepatic veins and the capillaries of the kidneys in the way of the direct passage of glucose into them if so attracted, and any impediment exists to its passage to the right, heart or to its proper conversion by the lungs.

Until it is proved that nutrition, secretion, circulation and other organic adaptive movements, require nerve conductors for their execution, I see no need of even inferring the existance of special "nutrition and secretion," "vaso-motor" or other special fibres. These processes go on quite perfectly in the vegetable kingdom, in which neither nerves nor any form of neurine have ever been proved, or even thought to exist.

Why may not vegetative processes go on in the animal kingdom without any necessity for invoking the influence of nerves specially to preside over and regulate them? What evidence is there that the nerves imbedded in the coats of arteries are vaso-motor in their function? Why are they not found in the coats of lacteals, lymphatics and systemic veins, the calibre of which undergoes quite as great variation as that of the arteries most abundantly supplied with them? Why are they not most abundant in the coats of the largest arteries? Why are they found in the portal and not in the hepatic veins in the liver? Why upon the pulmonary artery carrying venous blood, and not on the pulmonary veins which carry arterial blood?

If we regard the systemic capillaries where nutrition is accomplished, and the blood changed from arterial to venous, and the hepatic, where bile and sugar are formed from portal venous blood, and the pulmonary, in which the hydrocarbons of the blood of the pulmonary arteries is oxidized, as three localities where important chemico-vital changes occur and chemico-vital forces correlate into neural force, we may regard these nerves, as conductors of currents of

organic neural force, retrograde to the course of the blood current in the corresponding vessel and therein find a reason for their presence in the coats of vessels of distribution to such parts, and not in those vessels which return the blood from them.

I cannot see the need of special nerves for the conduction of a sensation of tickling, of pain, or temperature or of an inhibitory mandate, that would not require a special nerve fibre for each separate kind of titillation as stinging, itching; or of pain, as of cutting, dragging, aching, scalding, pricking, biting; or of temperature, as hot, cold, temperate, burning, freezing; or inhibitory, that would not require a special fibre to restrain each imaginable act.

A peculiar arrangement of nerve elements is doubtless required for the correlation of the impression of light into the sense of sight; or of sonorous vibration into audition; or of physical impact into the sense of touch; but tickling, pain and temperature no more require special nerves for their recognition than red, yellow and blue; or A natural, B flat, or C sharp! When the touch of a hot body gives pain, are there three special nerves required to convey the full impression?

ART. IV.—*Albuminuria.* By JAMES D. WHITNEY, M. D., San Francisco. Paper read before the San Francisco Medical Society, Oct. 22, 1872; with remarks on the ophthalmoscopic appearances, by W. F. SMITH, M. D.

Trusting the following case will not be uninteresting to the members of this society, I will present it in the hope that it may elicit views upon the very important subject of renal pathology.

On the sixth of December, 1871, J. C., aged 19, came to my office, complaining of shortness of breath, with great swelling of body and limbs. Upon auscultation, found the rythm of the heart perfect, with pulse about 80, and great

apparent œdema of lungs. Suspecting the kidneys to be the seat of disturbance, I advised him to go to bed at once, take a rum-sweat, and send me some of the first urine passed the following morning, which, upon examination proved to be scanty, of a dark, smoky appearance, specific gravity 1010, and coagulating almost solid with heat and Nitric acid.

The young man told me that about two weeks previous when in apparently perfect health, he had exposed himself, while perspiring profusely, to a current of air, and was almost immediately seized with a chill, followed by cold sweats at intervals, and a dull pain across the loins.

I also elicited upon further inquiry that he had contracted syphilis about three years previous, and had suffered from different consecutive phenomena for which he had been treated; but during the last year had required no medicine. Fearing there might be some specific complication, I prescribed alterative doses of the Iodide of Potash, kept him confined to bed, ordered dry cups applied to the loins, and to continue the diaphoretic treatment, to relieve, if possible, the embarrassed action of the kidneys.

As his symptoms became aggravated, with increase of œdema, I substituted diuretics with an occasional hydrogogue cathartic, which were followed by copious watery evacuations, and a slight increase of urine. About the fourth week, the scrotum having become enormously distended with fluid, it was necessary to relieve it by needle punctures. Early in January, so great was the irritability of the stomach, that milk was the only nourishment he could retain. Finding him at this time so exceedingly reduced in strength, I called in consultation Dr. James Murphy, who had formerly been his physician. We concluded to suspend the specific portion of treatment, and substitute a tonic, composed of iron and quinine, with small doses of spirits of nitre, which produced an excellent effect, restoring the tone of his stomach, and greatly improving his appetite. The urine also increased in quantity, but was still heavily loaded with albumen, and the dropsical symptoms grew rapidly worse, with great difficulty in breathing.

It was now about nine weeks from the inception of his malady, and so great was the abdominal accumulation, that immediate relief was imperative. I therefore tapped him, drawing off ten quarts of light straw-colored fluid. The tonic course of treatment was continued; and in addition I ordered gin, in small quantities, in which Juniper berries were kept soaked. The urine increased to an unnatural amount, and he now began to complain of imperfect vision, being able to distinguish only the outlines of objects in the room. The pulse increased to 110; he complained of violent frontal headache, had slight convulsions occasionally followed by epistaxis. To allay the uræmic symptoms, I prescribed small doses of carbonate of ammonia, with a remarkably happy effect, and suspended temporarily the iron and quinine mixture.

About three weeks subsequent to the first tapping, owing to the rapid return of ascites, with great suffocation, at his urgent request for relief, I repeated the operation, drawing off nearly as much fluid as before. Finding his appetite failing, and that he was growing rapidly weaker, it became necessary to return to the iron and quinine mixture. There was no recurrence of ascites; but he suffered severely with tympanites, which subsided upon taking compound galbanum pills.

He had now reached the first of March, and his sight still failing, I requested Dr. W. F. Smith to make an ophthalmoscopic examination, the result of which, and of several subsequent ones, he has kindly offered to describe, to complete the history of the case.

The pulse continued between 100 and 110 for over two months from the first manifestation of uræmic intoxication; and, although there was no ascites after the second tapping, so great was the pulmonary effusion, that embarrassed respiration compelled him to sleep in a sitting posture for over a month. Notwithstanding his very uncomfortable condition, which was aggravated by loss of hearing and complete aphonia, he gradually gained in strength, and the urine continued copious, with a slight improvement in character.

During his long and almost hopeless illness, several members of this society saw him with me, and there seemed to be but one opinion as to the termination. The patient, however, remaining hopeful, under a continuance of the treatment, he so far improved, that early in May, six months from the beginning of attendance, he was able to go into the country. He was obliged to return, however, after an absence of ten days, on account of the recurrence of severe headaches, which he attributed to the heat.

I have seen him at intervals since, and examined the urine, which has gradually improved, until now, Oct. 11th, there is scarcely a trace of albumen; specific gravity 1021; pulse 75, and sight almost perfect.

REMARKS ON OPHTHALMOSCOPIC EXAMINATION.

By the courtesy of Dr. Whitney, I called with him to see the case just described, on March 1st of this year, and found the following condition. The pupils were both largely dilated and did not react under the influence of light. There was no great sensitiveness of the retinæ under bright illumination. He possessed qualitative perception of light in both eyes, and with the left could distinguish as to whether the hand, when held before him, was closed or open. With the right he could merely distinguish large objects when passing between the eye and a bright light. The ophthalmoscope revealed very characteristic symptoms of nephritic retinitis. The fundus of each eye seemed to be slightly veiled by a very light pearl-colored gauze, which, however, did not prevent a clear view of the retina. In the right eye there was great congestion of the veins, but the arteries were narrowed in calibre and much lighter in color. The disk was reddened and its outlines somewhat obscured by thickening and by numerous new blood-vessels which covered it; it was also swollen. The retina presented very numerous and interesting changes on the track of the larger blood-vessels, large white or yellowish-white patches could be seen; these patches were situated at about the same relative distance from the papilla, surrounding it like a zone or wall interrupted at intervals. The larger patches appeared

lobulated, or like a soldier's tent wrapped up for transportation, with a cord around it; the blood-vessel occupying the position of the cord and seeming to be almost buried in the mass. Covering the site of the macula lutea were numerous small, brilliant white spots, having a stellate arrangement; which are very characteristic of albuminuric retinitis. The left eye differed from the right in that the white masses were not as large or as numerous, and there was a much smaller number of small white spots in the region of the macula.

This form of retinitis is very characteristic of renal disease, and is generally associated with the contracted or granular kidney; also with the large white kidney. It occurs, too constantly to be regarded as a coincidence, and must be classed as a symptom, and one which is almost pathognomonic of albuminuria. Sometimes the retinal changes occur before the primary kidney disease has been suspected, and the oculist, on being consulted for dimness of vision, has diagnosed the true nature of the disease, and the diagnosis has been confirmed by the tests for albumen in the urine. It is, however, a symptom of an advanced and often chronic stage, and causes the prognosis to be correspondingly grave. It is this fact which gives the present case its peculiar interest, as in subsequent examinations we have seen nearly all the symptoms of retinal mischief gradually disappear, and at the last examination, the white patches and spots were nowhere visible though the retinæ are still considerably congested, and by the present almost perfectly transparent condition of this membrane, we could trace the mischief that had been done to the choroid, which presents lines of thickened pigment cells, giving to the periphery of the fundi the appearance of a dark, thick network. The papillæ are still not quite normal in appearance, the right one especially being quite red and somewhat swollen. In this eye the vision is equal to about $\frac{20}{100}$; in the left, it amounts to $\frac{20}{30}$. The white patches spoken of are found, on microscopic examination, to be masses of hypertrophied connective or cellular tissue with fatty degeneration. The small white spots near the macula are

nests of the sclerosed fibers of Müller. The haziness of the vitreous is due to the proliferation of the vitreous web, and to the development of linear bodies whose origin is not understood, and is merely the result of irritation produced by the contingent inflamed membrane.

The connection between renal disease and disease of the retina is, as yet, not understood by pathologists, and is the subject of much controversy. The retinal disease is accounted for, by some, by the almost constantly existing hypertrophy of the heart and aortic tension. This explanation, however, will not hold in many reported cases (including the present one) where no heart complications existed.

It should be mentioned in conclusion, that the condition just described should not be confounded with the suddenly appearing uræmic amaurosis which is sometimes seen to accompany the convulsions and other symptoms of uræmic poisoning; the latter variety of blindness occurs quite suddenly, without producing any retinal changes visible by ophthalmoscopic examination, and disappears as suddenly as it appeared.

For further observations on this very interesting subject, the members are referred to an excellent article in Mr. Allbutt's work, "*On the Use of the Ophthalmoscope*," pps. 213 to 237.

ART. V.—*Idiopathic Tetanus. Primary cause, Suppression of Prespiration: Secondary, Hypodermic Injections.* By M. W. FISH, M. D., Brooklyn, Cal.

On September 18th, I was called to see R. H., a young man aged nineteen, living in Alameda county.

He complained of stiffness of muscles of neck; pain between shoulders and inability to open the mouth to its fullest extent, or turn the head from side to side; he could protrude the tongue by a little effort. He said that he had been drawing water from a well by means of a heavy tin can tied

to the end of a rope. The can held five gallons, and when full, required all his strength to draw it up. He had drawn water for three animals, night and morning, for several days, and thought he had taken cold by exposure while perspiring freely from the exercise.

As it was late in the evening and impracticable to send for a prescription, I ordered him a hot foot bath (with mustard); the neck and shoulders to be rubbed with liniment, and Pulv. Doveri. grs. viij, to be taken at once.

Sept. 19. He slept but little through the night, and now has all the symptoms of tetanus; well marked trismus, irregular and spasmodic movements of the limbs, inability to open the mouth, and constant tendency to opisthotonos whenever the spasmodic actions occur. I ordered Potass. Bromid grs. x. every hour, and Ol. Ricin ℥j to be taken at once.

In evening he was visited again, and the symptoms of the morning were found present and in increasing severity. It was learned from the patient's friends that he had been in the habit, for eight months or a year past, of using morphine subcutaneously, and that he had administered to himself, on an average, from ten to eighteen hypodermic injection every twenty-four hours during all that time, each injection averaging from twenty to thirty drops of Majendie's solution. One drachm of morphine in this way was consumed every five or six days.

His mother had for a number of years past been suffering from a very painful disorder, for which she had been accustomed to use morphine by hypodermic injection of the solution, some times administering it to herself and at others having the operation performed by her son, R. H. Out of mere curiosity the lad on one occasion, about a year ago, secretly administered a small subcutaneous injection of Majendie's solution of morphine to himself, and finding the resulting intoxication pleasant, he after an interval repeated it, and gradually got in the habit of its daily use. None of the family even suspected this, although his health was evidently suffering from some cause; and he succeeded in keeping the practice a secret for some months. When the cause

of his declining strength was discovered he was already confirmed in the opium habit, and had too late discovered the overmastering power of the enemy he had introduced into the citadel of his life. A determined, and for a short time successful, effort was made by his friends to break him of the habit, before the case seemed hopeless. He was for some days on the verge of delirium tremens, but finally recovered and seemed in a fair way to succeed in being permanently freed from his slavery to the drug; but the case was only in this respect a repetition of the old story. He indulged again "just once," and soon the lethal habit held him in full control.

On an inspection of his person, I found that the muscular portion of his arms and legs, and even other parts of his body, bore innumerable marks of the use of the hypodermic syringe; in fact it was difficult to find any sound integument on those portions of his body.

As it seemed to me impossible to withdraw the accustomed stimulus of morphine without producing distressing if not fatal results, is was continued in slightly reduced quantity, and I directed that it should be given by the stomach, and that the hypodermic use of it be discontinued if possible. He was directed to have beef and egg-nog regularly, as much as the stomach would bear, a stimulating liniment was applied to spine and neck, and the Bromide of Potassium was increased to 20 grains every hour. This treatment was continued till the morning of the 21st of September without any alleviation of the distressing symptoms. The use of the hypodermic syringe was occasionally resorted to, to allay the terrible nervous excitement, and with some temporary relief. As the Bromide seemed to have no effect it was discontinued and Chloral Hydrate substituted, grs. x. every hour, and the brandy, beef tea and milk punch continued.

In the evening, Dr. Bamford, of Brooklyn, and Dr. Cushing, of Oakland, saw the patient in consultation with me.

As the chloral had only caused a kind of broken sleep, frequently interrupted by distressing spasmodic action of the limbs and body, it was deemed advisable to increase it

to 20 grs., or even 30 grs., and to continue with each dose Majendie's solution, ʒj; hoping the administration of one such combined dose would cause him to sleep. The hypodermic use of morphine was interdicted. The use of nourishment continued as before.

On visiting R. H. Sept. 22d, I found that he had slept heavily through the night, the sleep being frequently interrupted by convulsive twitchings, which caused the patient to cry out in his sleep. He had taken about 60 grs. of chloral and 4 grs. of morphine (Majendie's sol., ʒij) during the night, falling asleep usually in half an hour after taking the medicine, and sleeping three or four hours; a jar of the bed, shutting of a door, or any similar noise, being sufficient to induce distressing spasms, during which he would bite his tongue, occasionally catching it between his teeth and be unable to extricate it. In the evening I attempted to administer chloroform by inhalation, but was forced to desist on account of alarming symptoms of dyspnœa and spasmodic closure of the glottis.

This treatment was continued until the evening of the 24th, when ⅛ grain of ext. Calabar Bean was added to each dose of the chloral and morphine, but it was discontinued on account of excitement of the brain which seemed to be induced, after two or three doses. As there was persistent constipation he was directed to have the bowels moved by enemas. The stomach too, seemed to have become intolerant of food, and beef tea and milk punch were directed to be given in the same manuer, but in increasing quantity.

From this time until his death, which occurred about midnight, Sept. 26th, there seemed to be but little change in the condition of the patient. The same course of treatment was persisted in and the largest amount of nourishment possible was administered, both by the mouth and rectum. On the last day an attempt was made to substitute quinine and iron for the chloral, and the following was ordered:

℞.—Quiniæ Sulph., grs. xl.
Tinct. Ferri. Muriat., ʒij.
Aquæ Cinnamon, } *aa.* ℥ij.
Syr. Simp. }

M. Sig. two tablespoonfuls to be given with Majendie's sol., ʒj.

Death occurred Sept. 26th, just ten days after I first saw the patient, and was not the result of spasms of any kind, but rather of nervous exhaustion, though occurring without premonition, and very suddenly.

ART. VI.—*San Rafael Clinique. Death from Hydrate of Chloral.*

In September, I was called to see Mr. A.; found him on his bed in a deep stupor; the pupils were contracted; the lips livid; extremities cold; pulse small and feeble; respiration but seven in the minute. From these symptons supposing the case one of poisoning by opium, the cold douch was at once used, but ineffectually. The attempt was made to force open the mouth, but it was impossible to get anything swallowed, and finally these efforts were desisted from as it was believed that the effect of the opium taken could be counteracted by the use of belladonna. Accordingly, the fluid extract was given hypodermically, repeating the injections from time to time until the pupils began slowly to dilate. Meanwhile artificial breathing was resorted to, and a direct current from one of Kidder's Electro-Magnetic machines passed thus from the base of the brain to the cardiac region, through the epigastrium and the larynx. Sinapisms were applied to the spine, body and extremities, and an enema of turpentine and coffee given. None of these measures, nor all of them combined, had the effect of restoring consciousness; nevertheless, the pulse gradually increased in strength and frequency, and the respiration finally reached seventeen in the minute.

During the time the foregoing measures were being carried out, something was learned of the history of the case. Mr. A—— had been addicted to the use of alcohol, and some two or three weeks before, had presented himself at the office complaining of tremor, loss of sleep, etc.—he was on the verge of delirium tremens. A mixture was prescribed for him containing hydrate of chloral (90 grs. to three ounces), and a teaspoonful was directed to be taken every two hours until he became quiet or obtained sleep. He had continued this prescription for some time, with the

effect of warding off the threatening attack. On this evening he had procured a two ounce vial of laudanum; from which he had probably taken one ounce as the bottle was found half emptied. From the time that he took the laudanum, or at least bought it, to the time that he was discovered, was about an hour and a half. He had that evening remarked to his wife that he intended to have a good sleep. A second bottle was afterwards found, which had, it is believed, been filled the previous day, and which had contained the chloral mixture. He had been in the habit of using chloral, and may have had it in his possession. It is probable, at any rate, that he took a drachm and a half of it, and an ounce of the laudanum. To resume the case: I remained with him some four hours, and on retiring left instructions with a competent person to watch the pulse and respiration, and directed him to call me should any change occur in either. The former was quite full, the latter free, and some seventeen in a minute. The stupor and the peculiar livid appearance of the face still continued. I was sent for about four o'clock in the morning; on reaching his bedside, almost immediately, he was found—dead. The attendant said that his respiration had continued good until the moment before, when it became spasmodic and had then suddenly ceased after one or two inspirations. Artificial breathing was continued for some minutes, but there was no return of animation.

I attribute this death solely to the action of hydrate of chloral. In 1868 I published in the *New York Journal of Medicine*, a case of death from chloroform, in which death was instantaneous and absolute. The dose was only a drachm and a half, if memory serves aright. (In this case both testicles had been previously removed for a scrofulous disorder, and after death the cord was found diseased and the kidneys weighed twenty-two ounces.)

In a case already published in the LANCET (page 336), I think I have shown that belladonna is able, if properly administered, to counteract very large quantities of opium and its salts. In the present case sufficient was given, though in small doses, to dilate the pupils.

Some years ago I made a series of experiments on animals to determine the action of chloroform on the heart. It was found in a certain proportion of the animals experimented on, that death resulted instantaneously, the heart being

paralyzed, and although on immediately opening the thorax the heart was irritated with a needle, as well as by a current of galvanism, not the slightest contraction of the ventricles could be obtained. In other animals however, treated in precisely the same manner, artificial breathing, the galvanic currents, etc., would again restore the heart's action. I was at that time forced to conclude that causes of death exist that we know nothing of—in connection with these agents. Since then I have given chloroform several thousand times, have read and thought much as to its mode of action, and have examined the history of fatal cases with some care, and I remain of the same opinion. From what experience I have had of chloral, I believe it to act as chloroform in the blood, and it seems to me to possess all the elements of *unknown danger* that the latter undoubtedly does.

Is there no way by which we can tell when these agents are dangerous? Is there no manner of administration that will ward off danger? Is there nothing that we can do when the heart is paralyzed, to restore life? With a history of the fatal cases before us it seems that me that we must confess our ignorance. When I administer chloroform I am conscious that I subject my patient to risk, and that my knowledge of this powerful agent is so limited that I know not how to guard him from threatened danger. I can only assure him that the chances are greatly in his favor, and that fatal results occur only in exceptional cases; but whether his case is to follow the rule or to prove the exception I am unable to say. These remarks seems to me to apply to chloral equally, though perhaps not to the same degree, that they do to chloroform.

NOTE —The stomach pump was not used in this case, for the reason that none was at hand. I did not place sufficient reliance on that, in my opinion, nearly useless instrument, (except for the police surgeon, or others, who can use it as soon almost as the poison has been taken), to think it worth while to waste valuable time in extemporizing one.

ART. VII.—*Recent Researches of Prof. Brown-Sequard on Epileptoid Convulsions.*

At the stated meeting of the New York Pathological Society, September 25, Dr. Brown-Sequard gave, in a brief manner, some new facts in regard to the production of epileptoid convulsions in animals, especially the Guinea pig.

The first animal exhibited had been operated upon so as to expose the spinal cord. This operation in the Guinea pig, as was long ago demonstrated by the speaker, is almost invariably followed by convulsive attacks similar in three essentials to those of epilepsy in the human subject. By irritation of what the doctor calls the epileptic zone, the skin of the neck near the ear, convulsions can be produced at will; the movements last from thirty to sixty seconds. Animals so operated upon never recover, the injury is irreparable, and after some months death takes place. A recently discovered and very interesting fact with regard to the production of these convulsive movements in the Guinea pig is, that injury to other nerves will be followed by phenomena similar in all respects to those produced by injury to the spinal cord.

Division of the sciatic nerve in the Guinea pig produces results similar to, if not identical with, those produced by injury of the spinal cord.

In this pig, remarked the professor, the sciatic nerve has been divided quite recently. I now irritate, by pinching, the skin of the neck, and you notice that the animal is thrown into violent convulsions of short duration.

Another animal was exhibited, in which the operation had been done some time ago. In this animal the convulsions could be produced with difficulty, as recovery was beginning to take place.

Another one was shown, nearly well, in which, after powerful pinching of the epileptic zone, no convulsions resulted. In these animals recovery takes place when the divided nerve is re-united. You will observe in two of these pigs that the toes of the leg supplied by the divided nerve are gone; the animal itself has eaten them off. The explanation of this fact is very simple: sensation of the part is abolished, and the pig eats it, just as it would anything else that came in its way. Here you notice one toe is left, it is supplied with *sensation* by a branch of the crural nerve, and has, therefore, escaped destruction. I have said that animals, after a certain length of time, recover. This is shown by increased sensation in the epileptic zone.

and by the falling off of the hair at the same spot. And now comes a very remarkable fact. These peculiarities or traits induced by this operation are *transmissible*. The young of the toeless father or mother, when also born without toes, are liable to convulsive seizures precisely similar to those of the parents, and recovery is preceded by falling off of the hair at the epileptic zone.

The facts show the wide range of phenomena produced when the nerves are injured, and no one observer, no matter how diligent, is capable of interpreting them. In conclusion, Dr. Sequard urged upon the younger members of the profession the necessity of aiding him in these investigations. The operations are simple, the results manifold and complex, and need careful observation and truthful record.

Dr. Sequard will, at an early date, give a series of lectures upon the results of his recent researches.—*Medical and Surgical Reporter.*

ART. VIII.—*Case of Acrodynia, or Neuralgia at the Point of the Finger.* Service of Prof. PANCOAST. [Philadelphia Medical Times, May 1, 1872.]

This was the case of a boy aged eighteen, whose finger had, some weeks before, been crushed in a cog-wheel. The wound had entirely healed, but the cicatrix was so extremely sensitive that he was unable to work—any accidental touch of it giving it intense pain, which shot up along his arm.

This, Prof. Pancoast remarked, was caused by some filaments of the highly sensitive digital nerve having been contused or torn by the accident and become subsequently involved in the cicatrix; it may be that some of the Pacinian bodies, which are so numerous on this nerve, have been implicated. The affection is limited to one small point of pain. The same effect is sometimes seen in sewing-women, who have punctured the pulpy end of the finger with a needle so fine as scarcely to leave a mark, the slight wound giving such trouble as to render the hand almost useless for months. The only remedy in such cases is excision of the affected part of the nerve. There are strange tumors, called painful tubercles, sometimes met with in the sensitive cutaneous nerves of the leg and arm, in size varying from a pea to a hickory-nut. They seem to be developed in the

center of the nervous trunk, and have its filaments spread over them; and are so extremely sensitive that a rude touch will frequently give rise to the epileptic aura, followed by fits. They are of such peculiar consistence—resembling fibro-cartilage—that after removal they will rebound, when thrown against a hard substance, like a ball made from the elastic cartilage at the end of a sturgeon's nose. These also, with the nerves to which they are attached, must be excised as the only means of relief.

Ether was administered, and the cicatrix, with a piece of the nerve, removed. The patient returned a week afterward, and reported himself entirely relieved.

In connection with the subject of imprisonment and injury of nerves by the contraction of cicatrices, the lecturer referred to the case of Colonel Kennedy Blood, of Brookville, in this State. He had suffered from necrosis of the lower end of the thigh-bone, from which, after some years of suffering, the dead fragments of bone were removed through an opening in the soft parts upon the inner side of the limb, near the condyle. After the wound cicatrized, pain was felt from the region of the hip, down the leg to the foot. In the course of some months this became unendurable, and his health gave way from the constant pain and the loss of rest it occasioned, no therapeutic measures affording him any relief. "In this condition he came to me, with the fixed resolution of having his thigh amputated, and not to listen to any other mode of treatment. After a careful examination, I came to the conclusion that the bone had become sound, and that all the trouble arose from the imprisonment of the trunk of the long saphenous nerve in the cicatrix, pressure upon which developed lines of pain, which could be traced along the branches of the nerve to the foot; at the same time there was, by reflex sympathy, excessive neuralgic pain felt throughout the whole region of the hip on that side. This pain in the hip had been for some months very severe, and was one of his reasons for insisting upon amput tion. I came to the conclusion, that if the trunks of the nerves involved in the cicatrix could be removed, not only the direct but all the reflex neuralgia would be relieved, and the limb saved.

"Of course, then, I would not amputate; so we compromised: I was to try my measures, and if they failed, it would then be time enough to consider the practicability of a more serious operation.

"I opened the cicatrix freely, and fell upon the trunk of the saphenous and some other nervous branches above the site of the old wound. The branches seemed unusually

numerous, in consequence of their all being double the natural size—owing, probably, to thickening of their neurilemmæ. Cutting all these trunks off above, I detached them from the cicatrix that had bound them down tightly to the bone, which, being exposed by the operation, was found to be in good condition. The wound healed kindly, and from that day to this he has been entirely without neuralgia in leg, foot, or hip; and, except a little numbness in the part from which I had cut off the nervous supply, he has a strong and useful limb. In fact, he leads an active life, and is a great still-hunter of the deer, and every year sends me one of his own killing."—*New York Medical Journal.*

Gynecology and Diseases of Children.

ART. IX.—*Craniotomy and Cephalotripsy in a Case of Facial Presentation.—Second Fundamental Mento-anterior or Mento-cotylidian position.—Death from Peritonitis.* By DR. A. ANDREI, San Francisco.

I am under obligations to Dr. Bowie of this city for the observation of this case, and I should thank him here for the exquisite *esprit de confrère* which distinguishes him.

Aug. 28, Dr. Bowie desired me to visit a woman in labor to whom he had been called in consultation, and with whom all operative maneuvers had failed up to this moment, viz., thirty hours after labor had commenced.

On arriving at the bedside there were present Drs. Rottanzi (the patient's original attendant), Du Pierri and Kelly. Dr. Rottanzi informed me that during the last year he had attended the same patient in her first accouchment, at which time the head presented, and he had found it necessary to use powerful and prolonged traction with the forceps to complete the delivery of a dead infant. At this period labor had begun the previous morning at six o'clock. Dr. R. having arrived, determined a facial presentation, and

called Dr. Kelly in consultation, and the application of the forceps was attempted, without any result. Dr. Du Pierri, called in consultation later, also applied the forceps, but uselessly. Dr. Bowie was then called, and he also in his turn applied the forceps without result. I found the patient in a very alarming condition; pulse filiform, body cold, physiognomy altered, pain excessive. The uterus was in a state of permanent and spasmodic contraction, the most delicate palpation was insupportable. The genital parts presented an enormous œdema, which rendered the condition of the parts entirely unrecognizable. By the touch however, I determined a facial presentation, second funda-

ERRATA.

On pages 598–99—For "Dr. Du Pierri," read "Dr. De Pieris."

On page 602, 20th line—Instead of "male branch," read "female branch." 21st line—For "female branch," read "male branch."

On page 602—Last line, read "4 days."

At ten o'clock in the evening we again met. The state of the patient had not changed; the pulse almost filiform, the skin cold, and pains constant. The presenting part was still confined to the same degree, and was perfectly transversal. In this position the chin corresponded to the left extremity of the transverse diameter. The mento-bregmatic diameter, that is to say, the diameter extending from the chin to the anterior fontanelle was parallel to the transverse diameter of the pelvis; the mento-bregmatic circumference parallel to the boundaries of the superior strait; the axis of the pelvis transversing the head in the direction of the occipto-frontal diameter. The posterior plane of the fœtus looked directly toward to the right, and the front of the fœtus towards the mother's left. I wish to be as pre-

cise as possible in the description of the position, because when a vice of the pelvis makes it presumable that craniotomy will become necessary, we should take pains to recognize the position as soon as possible, and to establish the most exact diagnosis. At this point, then, all resources not only of nature but of art had been exhausted. It is established as a general and almost absolute rule, that in facial presentations, whatever has been the relation of the chin with the boundaries of the superior strait at the debut of the labor, it is necessary in order that the accouchment should terminate spontaneously, that a movement of rotation should bring the chin under the symphysis of the pubis. The movement of rotation had not been executed either by nature, in spite of the powerful uterine contractions, or by the different operators who had attempted to make it with the aid of the forceps. There was an obstacle due either to the volume of the head, which was absolutely or relatively too great, or a contraction of the pelvis; a supposition which received considerable support in the history of the first labor.

Fig. 2.

Fig. 1.

After these considerations, invited by my *confréres*, I resolved to practice craniotomy, or perforation of the skull. Submitting the patient to the influence of chloroform with great precaution, and bringing her to the extreme border of the bed, I introduced the index and middle fingers of the left hand deeply into the vagina, and in passing them in every direction, I found to the left and almost behind the pubis, a plane regular surface, which I believed to be the frontal region; fixing the fingers as solidly as possible, with the right hand, I seized the handle of the perforator of Dr. Blot firmly, and caused its point to glide along the fingers of the left hand up to the fixed point.

As soon as the point of the perforator had reached the cranium, I pressed the instrument strongly, giving to it a rotary movement, and soon felt the resistance yield, convincing me that the bones had been traversed. The instrument being well within the cranium, I pressed apart the blades and moved them around in every direction, in order to break up the brain, thus facilitating the exit of the cerebral matter. The perforator had hardly been withdrawn, before a quantity of blood and cerebral matter escaped. I then introduced the index finger of the left hand into the cranium, thus assuring myself of the extent of the perforation. In order to aid the escape of the cerebral matter, I injected a considerable quantity of warm water, which, in flowing out, brought with it a large quantity. After having almost completely emptied the cranium, I proceeded to crush the head with the cephalotribe of Baudelocque (nephew of the celebrated accoucheur of this name). I then practiced cephalotripsy, which demanded the same preparations as the application of the forceps in the superior strait. This period of the operation, viz.: the crushing of the head, was executed slowly, in order to obtain a further flow of the cerebral substance and to leave the genital parts intact and to avoid wounding the soft parts by the formation of splinters. I was informed as to the complete extraction of the skull, by the appearance of the cerebral substance. The approach of the handles indicated the degree of compression, and I could feel with the hand the crumbling bones, which announced the crushed condition of the head. I compressed the cephalotribe as much as possible and proceeded to the extraction by moderated movements of traction, but perceived that the head moved, by the extreme facility with which I could close the handles and draw outwards the cephalotribe. I then withdrew the instrument without making a second application, having the intention to use the cranioclast of Dr. Simpson.

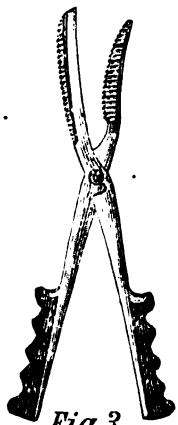
Fig. 3.

The cranioclast, much smaller than the cephalotribe, like it, is destined to crush the bones of the cranium; it is also composed of two branches, which cross each other at the point of articulation; but the blades or spoons are about straight, instead of being curved; the one which may be called the male branch, is full and very thick, whilst the female branch is perforated by an elongated opening or depression, which receives the thickened portion of the male branch, when the instrument is closed. The wooden handles give a solid support to the hands of the operator.

At this point, I could have abstained, perhaps, from the cephalotripsy and have abandoned to nature the expulsion, if the very alarming condition of the patient had not forced me to terminate as soon as possible.

In its application I proceeded in the following manner: I placed the male branch between the head and the pelvic wall, and engaged the female blade in the perforation, pushing it completely within the cranium; after having articulated the instrument, I exerted sufficient pressure on the handles to crush the part seized and to disjoint or separate the bones by traction movements. I made traction sometimes direct, sometimes moved the cranioclast around its axis, and terminated by easily extracting the head. I next disengaged the shoulders, and drew out an enormous infant. After twenty minutes I delivered the woman, without neglecting to obtain the retractility of the uterus as much as possible, by mechanical manœuvers. A bandage was applied, and the woman moved to another chamber well ærated and into a bed properly prepared. The state of the patient was relatively satisfactory. A small dose of morphia was administered and silence and tranquillity enjoined. The infant was a male, very well formed, but enormous, the head being in proportion to the body. Examining the head, I found that the perforation had been made in the temporal region, the cranium was almost empty and its base crushed. In spite of the most careful treatment, conducted by Dr. Bowie, the woman succumbed to peritonitis after —— days.

ART. X.—*Report of Private Obstetrical Practice for Thirty-nine Years.*

Dr. Fleetwood Churchill presented to the Dublin Obstetrical Society a summary of his private practice, based on facts entered in his case-books at the time when they came under observation. In the period from January, 1832, to December, 1870, inclusive, he had attended 2547 cases of labor, exclusive of abortions and premature births before the seventh month. The labors were most frequent in April, and least so in February. In 2540 cases there were 1290 male children, and 1250 female; and the deaths numbered 130, or one in 19.54. There were sixteen cases of twins, with eleven deaths; and one case of triplets. In forty-seven of the 2547 cases labor was protracted beyond twenty-four hours. In seven cases the second stage exceeded ten hours in duration. No death occurred in instances either of prolonged second stage or of tedious labor. The third stage was five minutes in 1965, and an hour in only eight cases out of 2387. *Post-partum* hemorrhage occurred three times, and once ended in death. Dr. Churchill had never known hemorrhage to occur when firm grasping was applied to the uterus immediately after the child was born, causing it to contract rapidly and to expel the placenta into the vagina. The length of the funis varied from about fifteen to fifty-seven inches. In 2565 children the following *presentations* were met with: superior extremities, six times; breech, forty-nine times; foot or knee, eighteen times; face, four times; forehead towards pubis, twenty-one times; prolapse of funis, eight times; hand or arm with head, seven times, foot and hand, once in a putrid child; spontaneous evolution, once. Of *complex* labour there were, one case of convulsions; five cases of accidental hemorrhage (with two deaths among the children, and one among the mothers); two of unavoidable hemorrhage (two children lost); one case of *præ-partum* internal hemorrhage (child lost); one of *post-partum* hemorrhage (fatal to mother); one of rupture of uterus (fatal in twenty minutes), came under observation, besides a few cases of laceration of the perinæum, eight cases of prolapsed funis, and three of puerperal mania. As regarded *operations:* version was employed on seven occasions; the forceps cases numbered forty-two, or one in sixty and a half, with three deaths; and craniotomy was performed seven times, the mothers recovering in four cases. The deaths, after the last-mentioned operation, were caused by convulsions (for which the operation was performed in the hope of saving the mother), by hemorrhage, and by phleg-

masia dolens. In the 2547 cases the maternal deaths amounted to seventeen, of which puerperal fever caused eight. The paper concluded with an enumeration of the malformations met with among the children.—*Brit. Med. Journal*, July 13, 1872.

ART. XI.—*Post-mortem Parturition.*

Dr. Aveling read before the Obstetrical Society of London (July 3d, 1872) a paper on this subject. He referred to forty-four cases of the kind, and from these deduced the following conclusions. 1. Expulsion of the contents of the uterus may take place after death without the aid of art. 2. This may occur in cases in which no symptoms of natural parturition can be discovered before death. 3. Many of the manœuvres and accidents which take place in labor during life may occur in *post-mortem* parturition, such as expulsion of the placenta, spontaneous evolution of the fœtus, and prolapsus, inversion, and rupture of the uterus. 4. Expulsion of the uterine contents and accidents which accompany labor may be caused after death either by the contracting power which persists in the uterus after the death of the rest of the body, or by the pressure exerted upon the uterus by gases of decomposition pent up in the abdomen. 5. Of these causes the latter is the more frequent. 6. After the death of its mother a child may continue to live in the uterus for many hours. 7. After the death of a woman undelivered, no time should be lost in removing the fœtus.

The President observed, that, if we called in rigor mortis to explain the *post-mortem* parturition, we must also remember that rigor mortis would also affect the rigidity of the passage. The question would then be, does the uterine rigor last longer than that of the passages?

Dr. Snow Beck said that some of the older cases of the kind should be accepted with some doubt as to their accuracy. Dr. Beck then described a case of partial expulsion of the child after the death of the mother, which he had himself noticed.

Dr. Madge, said it was an important point how soon after the death of the mother one would be justified in opening the womb to save the child. In one case of convulsions Dr. Madge did this twenty minutes after death, but the child was dead. There were no signs of uterine action after the mother's death, and on removing the child the uterus remained in its uncontracted state.—*Lancet*, July 27, 1872.

Ophthalmology and Otology.

ART. XII.—*Notes from Practice.* By WM. F. SMITH., M.D., San Francisco.

CASE 1.—*Wound of the Roof of the Orbit.*—During the month of September, 1871, I was called to see a boy, *æt.* 10, who had received a rather singular wound. I learned that two days previously the little fellow was running along with a playmate on one of our hard asphaltum pavements. He was carrying a piece of hard licorice in his hand; it was 2¼ in. in length in the form of a cylinder, and about ½ in. in diameter; as the father expressed it, "it was about the size and shape of a cigar stump, only rather longer." The boy fell down rather heavily, but after a moment picked himself up, and immediately inquired of his comrade as to where his licorice was. After looking about a moment the playmate exclaimed, "Why Willie, it's in your eye!" In fact the end of the piece could be seen in the inner angle of the right eye, between the globe and the internal wall of the orbit. Some gentlemen being attracted by the cries of the children, and noticing the very singular character of the accident, took the boy into a drug store near by, and the licorice was extracted with some difficulty by a strong pair of forceps. During the evening he had vomited somewhat, but had been lively and cheerful. The next day he felt weak and kept his room; he felt inactive and did not wish to play; had taken some nourishment.

On examining the wound I found it to be in the right upper lid, just above the upper fascicle of the tensor tarsi, a little over ½ in. in length and distensible by means of the probe. The probe passed easily into the wound fully 2 in., and when at the bottom the portion outside of the wound stood in a position almost at right angles to the plane of the face, the top extending slightly away from the median line. The vision of the eye did not seem to be injured, as he was able to read print with this eye alone. It seemed to diverge somewhat, however, and he would complain of diplopia, or double vision, when any object was held to his left, showing that the internal rectus had been disabled to a certain extent. The little fellow allowed the handling of the wound with considerable fortitude. The pulse was 98; surface of the skin was moist and the temperature of the body rather below normal. From the facts above enumerated it was concluded that the blunt end of the licorice had not impinged upon or injured the optic nerve, and from the direc-

tion of the probe it could not be supposed that it (the foreign body) had passed in the direction of the optic foramen, therefore it must have penetrated the roof of the orbit, as it had passed too deeply to have merely reached the thin bony plate, or to have fractured it without penetration. In answer to the parents, a rather doubtful and grave prognosis was given. The wound did not appear to heal readily from the bottom, and a purulent discharge appeared the fourth day. A carbolized solution was ordered and the nurse directed to inject a small portion with an india rubber syringe three times per day. A tent was also introduced to prevent cicitrization of the external lips of the wound. The little fellow took considerable food, but was subject to spells of vomiting which generally occurred after his breakfast. Beef tea, chicken broth, oyster soup or raw eggs in sherry wine formed the staples of his diet. He was very fond of confectionery, and it was noticed that when his appetite was humored in this respect, that the vomiting was much more persistent.

This condition of things continued about four weeks with very little variation. The wound discharged about four drachms per day. Sometimes he would appear quite cheerful and would amuse himself with his toys and playmates, but he became gradually emaciated. The mind did not seem to be at all affected, and being quite a precocious child would often surprise his nurse and parents by his quaint, or as they said, "old fashioned" remarks. During the fifth week new symptoms developed themselves. In passing the probe no bottom seemed to be reached, and even at the depth of three inches no resistance to its passage could be felt; for obvious reasons the probe was not allowed to pass further. During sleep he would often scream and awake in a terrified manner. At this time the vomiting was more easily produced; he could no longer take any solid food however daintily prepared; the beef tea could hardly be borne; he generally succeeded, however, in retaining the egg and sherry, also the tonics (quinine and iron) and the bromide of potassium solution, which had been ordered in the course of the previous treatment. There was no delirium. Ophthalmoscopic examination yielded only negative results, if we except an appearance of an anæmia of the papillæ. The vision remained normal. The pulse became dicrotic and very weak. He moved about very little, but liked to be propped on the pillows near the window so that he might gaze into the busy street. He complained of a constant, dull pain which he referred to the occipital region. He rarely slept quietly, and on waking could always speak of his

dreams. The lower extremities would often be found very cold, and the circulation was maintained with the aid of bottles of hot water packed in the coverings about his feet. He gradually sank, and died about six weeks after the accident.

The manner of his death was peculiar. He had been asleep for about one hour when he awoke with a acream, and after complaining to his mother about the pain in his head, he said that he believed he was about to die, and bid good bye with those about him and left messages for his little friends and the Doctor, then became comatose, the extremities grew cold, the pulse at the wrist very weak, almost imperceptible, and gradually vanished—but for some minutes after irregular action of the heart could be heard. Death succeeded the comatose condition after it had existed about forty minutes.

Ten hours after death an autopsy was made. On raising the calvaria, the dura mater was found greatly congested with dark venous blood, and on dividing this membrane it was found that an abscess occupied the entire right anterior lobe of the cerebrum, and was filled with a thick, bright colored, though sanious, pus. About midway between the optic foramen and the supra orbital ridge, an opening existed in the roof of the orbit, which had evidently been made by the penetrating body. It was nearly circular and almost one-half of an inch in diameter. The wound had, or appeared to have, extended through the dura mater, as a small portion of this membrane, immediately over the opening in the bone, had been absorbed, and the abscess seemed to communicate with the cavity of the orbit. The viscera were not examined.

A very interesting question in regard to this case suggests itself, viz.: With the extensive formation of pus in the cerebrum, why was there no delirium, no difficulty of speech, no loss of memory or other marked suspension of the supposed functions of the cerebrum?

The case was seen at different periods by Drs. O. O. Burgess, R. Beverly Cole and G. J. Bucknall.

Dr. Bucknall assisted at the *post mortem* examination.

The following review taken from the *Boston Med. & Surg. Journal* will be interesting to the specialist as giving some very interesting facts in relation to drugs so very extensively used in the practice of Ophthalmic diseases.—[Ed.]

ART. XIII.—*An Experimental Research on the Antagonism between the Action of Physostigmia and Atropia.* By THOS. B. FRASER, M.D., Lecturer on Materia Medica and Therapeutics, at Surgeon's Hall, Edinburgh. From the Transactions of the Royal Society of Edinburgh, vol. xxvi., pp. 184, with plates. Edinburgh, 1872.

This monograph is an admirable illustration of recent methods of research undertaken for the purpose of determining the exact actions of drugs on men and animals. It is equally an admirable illustration of the legitimate use of experiments on living animals by which knowledge, important to life and comfort, is obtained, that can be obtained in no other way. The empiricism of the past has left a rich legacy of clinical observation to the medical science of today; but in the long journey of the race, from Hippocrates to the nineteenth century, only scraps of exact knowledge of the modus operandi of drugs have been picked up. It will be the duty of the science of the future to supply this deficiency, and to build up, with slow and patient labor, an indestructible basis of exact knowledge, into which the precise relation of drugs to healthy and diseased structures and functions shall largely enter. In the performance of this task, science will derive a large amount of valuable assistance from the lower animals, from comparative experiment. Dr. Fraser, by his recent research into the mutual relations of physostigmia and atropia, has shown us how much can be done in this way; and in doing so, has made a valuable contribution to scientific medicine.

The antagonism of the physiological action of drugs has long been suspected, but never proved till recently. Medical journals of the past few years have made us familiar with the real or supposed antagonism of opium and belladonna. Dr. Norris tells us, in an excellent article upon the subject, that three centuries ago, in the year 1570, opium was given to remedy the ill effects of belladonna. Dr. Harley, in his late book on the Old Vegetable Neurotics, has shown that, though this antagonism exists, it is partial, not general, and cannot be relied on in the treatment of poisoning by either of these drugs. Antagonism has been suspected, and to some extent proved between the actions of

atropia and prussic acid; between those of strychnia and curara; of strychnia and bromide of potassium; of strychnia and chloroform; but in none of these instances has the extent and character of the antagonism been demonstrated. Dr. Fraser's laborious researches have shown that, between atropia and physostigmia, "the reality of a lethal antagonism may be readily and certainly established by experiment."

Rabbits and dogs, chiefly the former, were the subjects of the observer's experiments. The work was done in the Materia Medica Laboratory of the University of Edinburgh. Some idea of the amount of labor performed may be gathered from the statement that, in all, four hundred and ninety-two experiments were made. Only those who have undertaken investigations of the character we are considecing can appreciate the amount and quality of the work which that statement implies.

The method of experimentation was alike simple and satisfactory. First, the minimum lethal dose for rabbits or dogs, as the case might be, of physostigmia and of atropia was determined by a series of preliminary experiments. This was done so accurately, that Dr. Fraser was able, by ascertaining the weight of an animal, to state in advance of experiment the precise minimum dose that would kill it. Having obtained this knowledge, the second step was to administer doses of physostigmia equal to minimum fatal ones or in excess of them, and in combination with them to administer atropia. Thirdly, when recovery follows the administration of the agents together, the animal was allowed to recover completely from the effects of the experiment. As soon as complete recovery was established, the same dose of physostigmia that had previously been given with atropia, and from which the animal recovered, was repeated, but without atropia. In every such instance, the dose proved fatal. Such results warrant the conclusion of the observer, that, "therefore, when the administration of atropia prevented an otherwise fatal dose of physostigmia from causing death, a perfect demonstration was obtained of the power of atropia to produce some physiological action or actions, that counteracted some otherwise lethal action or actions of physostigmia."

The experiments disclosed a number of interesting and instructive physiological facts. The minimum lethal dose of sulphate of atropia for rabbits was found to be 21 grains for every three pounds weight, or 7 grains per pound. Dogs are more susceptible to it than rabbits. Fifteen grains killed a dog weighing sixteen pounds—less than a grain to

a pound. A man of the average weight of 150 pounds is most sensibly affected by $\frac{1}{30}$ of a grain, and would probably be killed by $\frac{1}{2}$ of a grain of sulphate of atropia. This makes a fatal dose for a human being $\frac{1}{300}$ of a grain per pound weight; and $\frac{1}{4500}$ of a grain per pound weight, a dose that produces most unequivocal effects. The scale of fatal doses is 7 grains per pound for rabbits, 1 grain per pound for dogs, and $\frac{1}{300}$ of a grain per pound for man. What a curious field for speculation and investigation these facts disclose. Rabbits do not tolerate physostigmia as they do atropia; the minimum lethal dose for them of the extract of physostigmia being 0·4 of a grain per pound weight, or 1·2 of a grain for a rabbit weighing three pounds. Another curious phenomenon is the range of counteraction. Atropia counteracts in rabbits the lethal action of physostigmia only within certain limits both of dose and time. Not more than three and a half times the minimum lethal dose of the latter can be antagonized by the former; that is, a rabbit weighing three pounds will not be killed by a quantity of the extract of physostigmia varying from 1·2 grains to 3·5 grains, provided an appropriate amount of atropia is also administered. More than 3·5 grains cannot be antagonized. The limits of the counteracting doses vary slightly, as one agent is given simultaneously with the other, or five minutes before or five minutes after the other. In like manner, it was shown that if too little or too much atropia is given for a definite quantity of physostigmia, death will not be prevented. Thus, a quantity of the sulphate of atropia varying from $\frac{1}{20}$ of a grain to 3·3 grains will prevent the lethal action of three grains of extract of physostigmia; but less than $\frac{1}{20}$ of a grain and more than 3·3 grains will not do so.

The range of time relation is not less curious or less important than that of doses. "The fatal effect of one and a half times the minimum lethal dose of physostigmia (3 grains of the extract) can be prevented by any dose between $\frac{1}{20}$ of a grain and $2\frac{1}{10}$ grains of sulphate of atropia, if it be administered within ten minutes afterwards; and by any dose between $\frac{3}{10}$ of a grain and one grain of sulphate of atropia, if it be administered within fifteen minutes afterwards." Beyond this interval, successful antagonism does not occur. Another fact, not less extraordinary than inexplicable at present, which Dr. Fraser's experiments have brought to light, is this; a non-fatal dose of physostigmia combined with, or rather given simultaneously with a non-fatal dose of atropia, will be fatal. This is very odd, when we remember that if the doses of the agents are increased a fatal result is prevented.

There are other curious phenomena, described in this monograph, which it would be pleasant to mention and discuss, but our space forbids it. We must refer the student of physiological therapeutics, who is interested in these most fascinating inquiries, to the original work. Its concluding paragraph forms an appropriate conclusion to this imperfect notice. Speaking of the way or mode by which atropia counteracts the lethal action of physostigmia, the author says: "In presence of the many obvious proofs to the contrary contained in this paper, I have considered it superfluous to enter into any discussion of the possibility of this counteraction being the result either of some chemical reaction between atropia and physostigmia, or of an increased rapidity in the elimination of the one substance produced by the action of the other. The conditions of the experiments, and the symptoms that were observed, render it certain that atropia prevents the fatal effect of a lethal dose of physostigmia by so influencing the functions of certain structures as to prevent such manifestations from being produced in them by physostigmia, as would result in death. The one substance counteracts the action of the other; and the result is a physiological antagonism so remarkable and decided, that the fatal effect even of three and a half times the minimum lethal dose of physostigmia may be prevented by atropia. The existence of such an antagonism encourages the hope that the power of directly counteracting disease is far from unattainable, and it supplies a strong incentive to efforts designed to determine the conditions of disease and the actions of remedies with an exactitude sufficient to show how the remedial action may be applied as a counteracting influence to the diseased condition".

ART. XIV.—*Clinical Notes.* By C. H. BURNETT, M. D.

The first and second cases which I shall describe show the advantages, in some forms of deafness, of two new operations introduced to otiatrics by Prof. Adam Politzer, of Vienna.

The indications for, and the method of performing them have been fully explained by Prof. Politzer, in a lecture, translated into the *Medical Times* for March 15, 1872.

In order, however, to bring before the reader's mind the chief points in that lecture, I shall simply state that the op-

erations, very similar in their nature to each other, are indicated in cases of chronic deafness due to retraction of the membrana tympani as a whole, or when bands of fibrous tissue in any part of the membrane interfere with its vibration.

The first condition is characterized by prominence of the folds of the membrana tympani, especially the posterior fold, and the foreshortening of the handle of the malleus.

The second condition is characterized by prominent bands or ridges running across the surface of the membrane, with or without foreshortening of the handle of the malleus. These bands hold the membrana tympani in a fixed position, and any relief afforded by the air-douche is only temporary, for the membrane soon returns to its former position in consequence of contraction of the fibrous bands.

In order to relieve this abnormal tension of the membrana tympani, Politzer has performed an operation in a series of cases of each form of the disease, consisting of cutting through the posterior fold of the membrana tympani in the former case, and of a severance of the fibrous bands in the latter. This is accomplished with a delicate knife, rounded and sharpened at the end, amd which is curved at an angle of forty-five degrees from the handle, or straight, according to the choice of the operator. Politzer recommends the curved form, as allowing more freedom in vision, the hand of the operator being below and not between the ear of the patient and the eye of the surgeon, as it is very apt to be if one uses the straight form of knife.

Gruber prefers a perfectly straight knife in all operations on the ear.

In performing the following operations, I have adhered to Politzer's advice respecting the form of the instrument.

The first case was one of so-called chronic catarrh of the middle ear, in a man sixty-three years old, who presented himself at the Ear Department of the Philadelphia Dispensary last April, complaining of deafness, and desiring treatment. The right ear was the worse, the watch audible 10 metres to the normal ear being heard only 7 cm. The membrana tympani on that side was retracted, marked with cicatrices, the *folds* were *prominent*, and the handle of the malleus was greatly foreshortened. The air-douche gave no relief, being unable to overcome the retraction of the membrana tympani. I then determined to cut through the posterior fold of the membrane, taking care to cut from above downwards, in order to avoid severing the chorda tympani, which lies adjacent to the point usually chosen for the operation in question.

The operation required but a few moments, caused very little pain, and but a drop of blood exuded from the wound, which was 2 mm. in length. There were no unpleasant symptoms of nausea or dizziness on the part of the patient, who never flinched, but remained sitting upright in an ordinary chair, without any support to his head; although it is advisable in most cases to have the head of the patient placed against a firm support, to prevent any sudden movement away from the operator.

The hearing increased instantly to 17 cm. for the watch. Two days later, the hearing-distance had increased to 50 cm. for the watch, showing that, although this patient was old and not the best subject for such an operation, enough was gained by the operation to demonstrate its practicability.

The second operation was upon a female thirty-nine years old, who had noticed deafness five years previous to the time she presented herself for treatment, in April last, at the Philadelphia Dispensary. She showed the usual symptons of chronic catarrh of the throat and ear, the latter of the non-secretory form, and had probably been hard of hearing longer than she imagined. The right ear was the more affected, and to that the treatment was directed. The hearing-distance for the large watch, audible 10 metres to the normal ear, was reduced to 35 cm., and for the voice in conversation 3 metres. This increased to 40 cm. for the watch, and for the voice to 4 metres, after the introduction of air into the middle ear according to Politzer's method. The membrana tympani appeared very opaque and white, and a large oval cicatrix ran parallel to the handle of the malleus, posteriorly. There were a few small cicatrices in front of the handle of the malleus. The most important change, however, in the membrane, was the prominent white band of fibrous tissue running from the short process of the malleus, downwards and backwards, above the cicatrix, to the periphery of the membrane.

The treatment first pursued consisted of the application of a borax solution (ʒj to Oj) to the nostrils by direct syringing. In the course of ten days the hearing-distance increased to 55 cm., beyond which point the means in use failed to advance it.

On the 3d of May I cut through the aforesaid band of fibrous tissue. The wound bled more than in the previous case, the hemorrhage amounting to several drops. There was no immediate increase in the hearing-distance, and the patient experienced some pain during the ensuing evening. This was followed by slight local redness at the point of incision, which disappeared entirely in two or three days.

In eighteen days from date of operation the hearing-distance had increased to 70 cm. for the watch, and for the voice eight paces. In thirty days the hearing-distance had reached one metre for the watch, and for spoken words ten paces.

This case I have still under observation, and although the women is in a humble condition of life and is lactating, she is greatly improved.

The following case demonstrates the advantage to be derived from *paracentisis membranæ tympani* in the suppurative stage of otitis media acuta. Gruber has within the last two years drawn the attention of the profession to the benefit of this operation, and has delivered several clinical lectures on the subject, the most important of which have been published in the *Medical and Surgical Reporter* for June 8, 1872, and in the *Pester Mediz-chirurg. Presse* 8 Jahrgang, 1872, where the indications for, and the method of performing the operation are fully explained. Great caution must be exercised in making the diagnosis of a collection of exudation behind the membrana tympani, and the point of incision, when we have concluded to perform the operation, should be in the postero-inferior quadrant of the membrane.

The great advantages in this operation are that *we choose* the point of exit for the collection of exudation which lies behind the membrane, and prevent the spontaneous formation of a large perforation, with its attendant disposition towards a chronic stage.

In the following case the good results of the operation are seen.

It was performed upon a healthy mechanic, thirty-nine years old, on the 17th of last May. He had been exposed during the warm period in May to the direct rays of the sun, had been greatly heated, and had allowed himself to cool rapidly. On the 14th of May he felt great pain and deafness in left ear. The hearing-distance was reduced to 1¼ metres for the large watch already mentioned in the previous cases. The membrane was greatly infiltrated, and the malleus had become invisible. The Eustachian tubes were pervious on each side. I ordered the application of two leeches on the tragus, and rest.

Three days later, I saw the man again. The pain had increased; the membrana tympani was forced outwards, especially at the postero-quadrant, by a collection of exudation.

Paracentisis was therefore performed at the postero-inferior quadrant, and the pain was instantly relieved. Upon exercising the Valsalvan method of inflating the tympanum, a large drop of pus the size of a pea was forced through the

opening in the membrane, and the hearing-distance increased to nearly its normal standard.

By the next day the wound had closed, the pain had not returned, and the hearing was normal.

In this case, by performing paracentisis of the menbrana tympani at the right time, the patient escaped a continuauce of pain, and the spontaneous opening of the membrane at a less favorable point than the one chosen for the operation.

The postero-inferior quadrant of the membrane is selected as the point for paracentisis, because the simple act of blowing the nose, on the part of the patient, forces the exudation backwards, and gravity tends to carry it downwards; the two forces insuring a complete emptying of the fluid contents of the cavity of the tympanum, if an opening in the membrane exist at the postero-inferior segment.—(*Medical Times.*)

Editorial.

The second annual session of the State Medical Society concluded its work in Oakland on the tenth instant. In he proper department of this number will be found a complete report of its transactions with the exception of the papers read, which, being the property of the organization, and referred to its publication committee, we could not with propriety publish in advance of the annual volume of transactions. The attendance, though small when the membership is considered, was larger than that in Sacramento last year; and, as the President suggested in his closing remarks, the proceedings were of unusual interest, and conducted in a spirit of entire harmony, and the most cordial fraternal feeling.

It is with great pleasure that we record this, for owing to the disturbing influences which have hitherto prevented that unity of purpose and proper organization of the profession on this coast, we hail with joy *anything* that gives promise of a disposition on the part of the few or many to labor in concert for the common good. We have no sym-

pathy with those of the regular profession who studiously keep themselves aloof from the annual attempts at reunion, because on account of their absence, perhaps, the affairs of the society are managed by those with whom they do not desire to affiliate, or those whose professional conduct may not meet with their approbation, and then growl on account of the improper action of the few or many who may desire harmony, and do use their best exertions to promote interests which we suppose are dear to us all.

We live in a republic, and all our institutions partake of its character—it is our boast that only the majority can rule, and we have a ballot-box to settle our differences. If those who, boy-like, refuse to play unless the others will play their way, will come in sufficient force, they may by the means of arbitration above referred to induce the others to play *any* desired way.

For the past two years, the chief complaint seems to have been that the society has been conducted by a clique representing one of the medical schools, and, therefore, those opposed to the method of imparting medical instruction, as practised on this coast, were bound to refrain from countenancing any such assemblage. We do not admit the justice of the charge, but whether just or not, we assert that the society has been ably managed, has increased in importance, has been harmoniously conducted, and we challenge any similar body to produce papers of more practical value, or essays of more general interest than were those presented to the session just held. However, recognizing the cause for stumbling which may have deterred some weak brother from showing his interest in professional affairs, a successful effort was made to get a committee on nominations, (which body was composed of one member from each county represented,) which, on meeting, was found to be unanimous in the idea that officers sufficient could be named who were not bound by "entangling alliances," and whose election would remove the cause of complaint. In this they were successful, as a glance at the list will prove. The committee did not stop there, but recommended that the permanent place of meeting be fixed at Sacramento.

Several reasons urged this selection: it is the State capital, where the printing is done, and the archives of the society must be kept; it removes the itinerant-show character of a deliberative body of professional men meeting in different parts of the State each year; it will enable the society to meet upon the ground most friendly to its growth, in a place where its value is most felt, and where the greater number of local practitioners reside who manifest interest in its welfare. This is not too positive an assertion.

The medical science seems to be appreciated in Sacramento more than elsewhere in the State, (we think) because the profession there is more united than in our other cities; its medical men have openly shown more zeal in preparing papers for the sessions and have attended in larger numbers than the representatives from other localities, and the public officials have shown more disposition to honor physicians and make them desire to come again.

After the experience of the American Medical Association in this city, last year, we do not fear the denial of our assertions. All effort on the part of its committee of arrangements failed to induce the city government to do, what has always been accorded *unsolicited* in other cities, give it a semi-official reception, in acknowledgement of the brains and skill in its composition; the regular profession resident gave it a very slim attendance, and the most ordinary hospitalities even, were extended by the few only. If distinguished men from beyond the Rocky Mountains get such a cool reception, after the fatigue of their journey undertaken in the cause of common interest to us all, what must our nearer *confrères* expect?

The attendance from San Francisco was exceedingly sparse at this session, and even Oakland did not turn out in numbers, as was expected of her.

One important amendment to the constitution was adopted, at this meeting, providing that no one from a county having a local society, can be admitted to membership in the State Society without previously joining the home organization. We consider this to be right. It encourages the formation of local societies and makes them

the unit in medical organizations, with appeal to that of the State, which latter is, or should be, subject to the national. The amendment also supports local societies in their efforts to discipline refractory or unworthy members. Other proposed amendments were suggested, but had to lie over, under the rule, until the next meeting, which will take place in Sacramento on the second Wednesday in April next. There was a committee appointed to report on what, if any, amendments or alterations are required in the constitution and by-laws, and this committee will receive any suggestions offered.

We consider this last the most successful and interesting session held since the reorganization of the society, and we hope for the speedy appearance of its volume of transactions, containing the papers and essays read.

After the adjournment, the members were entertained by the Alameda county profession, but the early hour at which the last train left for San Francisco, forced an unwilling desertion of the tables.

We are pleased to notice that the *Detroit Review of Medicine and Pharmacy*, for October, has given an admirable full page photograph to illustrate "the results of a hip joint amputation," made by Dr. T. A. McGraw, and which accompanies a very full report of the case. A complete description of an operation, or a morbid growth, cannot give as perfect an idea of the subject as will an illustration, and while a wood cut, if carefully executed, is cheaper and may be very effective, a photograph is more satisfactory and is a *fac-simile*. With the facilities existing now-a-days for perfect copies to be obtained by photography, it would seem inexcusable for any journal to omit this valued means of imparting knowledge. We trust that ere long all editors will avail themselves of this method, and we are sure that there will be no cause for them to regret the extra expense or trouble, when they see how much their periodicals are increased in worth thereby.

We call the attention of the few of our subscribers who have failed to remit their annual subscription to the fact. We supply the LANCET at a lower price than any medical journal of its pages is furnished, and can only hope to continue to do so, by realizing promptly the sum charged. We therefore call on delinquents to respond at once.

The currency amount equivalent to the gold price, can be sent by post-office order, or in a registered letter, and those to whom we refer, must not be surprised if they do not receive the next number, on account of failure to notice this article.

We clip the following from a daily Eastern paper: It has been asserted by one of our exchanges that the "experiment" in St. Louis was a failure, and that the authorities were so convinced of this, that a strenuous effort would be made to repeal the act. It would seem from the extract, that the highest authority, and the one who has the best means for ascertaining the facts of the case, is of a different opinion.

At a meeting in behalf of a Social Evil Hospital in St. Louis last week, the Mayor said: "As many are of the belief that the fact of legally regulating houses of prostitution causes an increase of the evil, I am happy to state that such is not the fact. There has been an actual decrease in the number of these houses and their inmates since the establishment of this law, and the decrease in disease is fully fifty per cent. If this be the case, we think we have all just cause of congratulation that the cause of humanity is being benefited by the social evil ordinance, and that, looking at past results, it can scarcely longer be called an experiment, but a success in all that its most sanguine advocates claimed for it."

We notice, in an exchange, that the police authorities of Chicago have prohibited the posting of quack advertise-

ments about the streets, and have forbidden the circulation of similar cards.

We would like to see the good example followed here, in particular, for there is surely no city in our country where the evil is carried to such an extent as in San Francisco. The limit of such filthiness would seem to have been reached in a so-called medical record, which is circulated freely about town by a quack, and is to be found in all the hotels and places of public resort. He is as modest as the rest of the breed in sounding his own praises, and mentioning as his friends and associates valued names of celebrated men with whom he has never spoken a word, and who would be insulted were he to contaminate their rooms with his presence. He openly advertises his villainous inventions for prevention of conception, and for abortion, and richly deserves the salubrious air of San Quentin as a restorative to his broken down character, if not physique.

The Michigan State Medical Society at its last session enacted the following:

"*Resolved*, That the State Medical Society of Michigan hereby adopts as one of its standing rules, that all members of this society are strictly prohibited from advertising in any way, except to the following extent:

"JOHN DOE, M. D.,
PHYSICIAN AND SURGEON,
(*Or Oculist, Aurist, or other Specialty,*)
Office, No. —— Street."

"Anything more than this will subject the offender to the penalty of expulsion from the society. All members who are recognized as specialists, and who advertise themselves in accordance with the preceding rules, will not be permitted under such an advertisement to engage in general practice."

This is a very radical step, but we must endorse it. It strikes at the foundation of success in quackery, and it is

ittee of Arrangements had provided a new "order of business" to facilitate the work on hand, and after some discussion, it was adopted. The minutes of the last session were adopted as published.

The address of welcome was then delivered by Dr. Pinkerton, of Oakland, after which the President's address was in order, but that official, desiring a larger audience to hear some important points to be presented, obtained a postponement of the address until the afternoon session. Dr. Hewston, of San Francisco, moved that the order of business be suspended to allow of the election of officers at the commencement of the session. This was opposed, on the ground that elections of officers in similar societies were always held at the close of the session, when the members could have united on some suitable candidates, and that the newly elected officers would not enter upon their duties until the commencement of the session succeeding, and then carry its business from beginning to end, and not serve in parts of two sessions as at present; moreover, there was considerable dissatisfaction expressed at the hurried manner in which the elections were pressed through last year.

After considerable discussion, the motion was carried, as was also one to elect a nominating committee to consist of one member from each county represented. The committee was elected as follows:

Alameda.....Dr. Babcock.
San Francisco.....Dr. G. Hewston.
Sacramento.....Dr. Logan.
Yuba.....Dr. Reilly.
Tuolumne.....Dr. Franklin.
Yolo.....Dr. Parrimore.
Tehama.....Dr. Bradway.
Napa.....Dr. Paugh.
Santa Bárbara and San Luis Obispo.....Dr. Hays.
Amador.....Dr. Parkinson.

The Secretary read a report from the Board of Censors, reporting favorably on the applications for membership of the following gentlemen, whose credentials had been examined and found to be satisfactory, viz.:

F. L. Weeks	San Francisco	Toland College	1865
F. A. Bellingo	Woodland	Univ'ty of the Pac.	1870
A. G. Buffum	San Francisco	Rush. Med. College.	1856
S. Holmes	Oakland	University of Penn.	1853
A. B. Caldwell	Marysville	Harvard	1869

W. Bamford....Brooklyn.....Indiana Med. Col..1848
J. H. Lowe.....Knight's Ferry...University of La...1858
M. Baker.....Visalia.....Rush. Med.College.1865

On motion, the report was received, and the above named duly elected to membership. The following named gentlemen were proposed as "members by invitation:"

Prof. Jno. LeConte, M.D., } Univ. of Cal., by Dr. Babcock.
" Jos. LeConte, M.D., }
" Louis Agassiz, M.D., Harvard Univ., by Dr. Hewston.
" Hurtle, M.D., of Vienna, } by Dr. Logan.
" Cameron, M.D., of Dublin, }
" S. W. Thayer, M.D., Univ. of Vt., by Dr. Chesley.

They were unanimously elected, and on motion of Dr. Hewston, the Corresponding Secretary was directed to transmit to these gentlemen the Diploma of the Society. Dr. Logan, Chairman of the Committee on Publication, reported the work done by the committee, and that it was free from debt. He announced that hereafter the Society will not be called upon to publish its transactions, as a recent act of the Legislature provides that the State will assume that obligation to the extent of $600 annually. On motion of Dr. Hewston, the further reading of reports by Standing Committees was deferred until a future session. The Society then adjourned until 2 P. M.

AFTERNOON SESSION.

The Society was called to order by the President at 2 P. M. Increased attendance. On motion of Dr. Hewston, it was decided that the officers of the Society now holding positions, retain their offices until the close of this session; the officers to be elected to commence and carry on the business of the next session.

Dr. Babcock, Chairman of the Committee on Nominations, read the following report:

"The Committee on Nominations report as follows:

President—

G. A. Shurtleff, M.D., of San Joaquin County.

Vice-Presidents—

T. H. Pinkerton, M.D., of Alameda County.
J. J. Franklin, M.D., of Tuolumne County.
W. F. Cheney, M.D., of Butte County.
W. W. Hays, M.D., of San Luis Obispo County.

Corresponding Secretary—

W. T. Wythe, M.D., of Sacramento County.

Recording Secretaries—

F. W. Todd, M.D., of San Joaquin County.
E. M. Curtiss, M.D., of Sacramento County.

Treasurer—

A. B. Stout, M.D., of San Francisco County.

Board of Censors—

J. S. Adams, M.D., of Napa County.
J. Hewston, M.D., of San Francisco County.
T. T. Cabaniss, M.D., of Siskiyou County.
W. R. Cluness, M.D., of Sacramento County.
E. L. Parrimore, M.D., of Yolo County.

The committee name Sacramento as the next place of meeting, and would recommend the same as the permanent place of meeting of the Society.

JOHN O. REILLY, Secretary.

H. P. BABCOCK, Chairman.

On motion of Dr. Chesley, the report was received and filed. On motion of Dr. Logan, the Secretary was directed to cast the vote of the Society for the officers nominated by the committee; carried, and the above mentioned officers were declared duly elected.

Dr. Logan moved for the appointment, by the Chair, of a committee of three to revise the Constitution and By-Laws and report at next session, what, if any, changes are necessary; carried, and the Chair appointed Drs. Logan, Babcock and Murphy of Sacramento, as such committee.

Dr. Todd presented the report of the committee appointed 12th of October, 1871, to suggest a plan for the relief of indigent members of the Socity and their families. The report was received without being read and placed on file.

Dr. Nixon, Chairman of Committee on Surgery, read an able paper on injuries received from railroad accidents, punctured and contused wounds, etc.; several cases were cited. The paper was referred to the Committee on Publication.

The hour for the President's address having arrived, Dr. Gibbons delivered a lengthy resumé of the progress of the Medical Science, the advantages of organizations like the present, exhorted the profession to stand firm against im-

proper influences brought to bear by imposters within and without, and closed with an appeal to eschew intemperance and cultivate religion. The address was applauded and referred to the Committee on Publication.

Dr. Hatch, Chairman of the Committee on "Medical Topography, Meteorology, Endemics and Epidemics," read a lengthy and exhaustive paper, in the course of which all the mineral waters, springs, mud baths, etc., were given; their geographical position, chemical analyses, and the diseases for which they usually are or can be reserted to. The paper was referred to the Committee on Publication.

Dr. Lane then read a paper on Tracheotomy in Croup. Twenty-three cases were given, seventeen of whom died and six recovered; of the fatal cases, several were almost moribund when the operation was performed, but even in these cases, the relief was so marked and the agonies of death so much alleviated that the friends always expressed satisfaction at the operation. It was thought that many cases would have recovered had the operation been earlier performed. The vapor of Chlorate of Potash was of service in nearly all cases.

On the conclusion of the paper, the Society adjourned until 7 P. M.

EVENING SESSION.

The Society was called to order by Vice-President Shurtleff, who introduced Prof. E. S. Carr, M. D. of the University of California. A goodly number of lay people, of both sexes, was present, and listened to an exhaustive address from the Professor on "Medicine, past and present." The motion to refer the paper to the Publicating Committee was declined by the author on the ground that the subject was one that did not properly come under the heading of "Society's Transactions."

Dr. E. R. Taylor followed in a very lengthy and able paper entitled "Some Thoughts on Medical Education," in which frequent occasion was taken to severely criticise the address of Dr. Yandell, President of American Medical Association, in which Dr. Y. advocated only superficial education as necessary, in order to make a qualified practitioner. Dr. Taylor did not agree in any point with Dr. Yandell, but urged thorough preliminary education as a basis on which to build a compact superstructure. The paper was referred to the committee.

Dr. Curtiss then read a very valuable paper on "Alcoholic and Tobacco Amaurosis." Several cases were cited. The Doctor considered the disease caused by alcohol, not to-

bacco, and relied greatly on Strychnine applied hypodermically. This paper was also referred to the Publication Committee.

On motion, the Society then adjourned until 10 A. M. October 10th.

SECOND DAY'S PROCEEDINGS.—MORNING SESSION.

The President called the Society to order at 10 A. M. The Secretary read the minutes of the previous day, which was referred back for correction and revision. Dr. Todd moved that the Society resolve itself into a Committee of the Whole, immediately at the close of this session, in order to organize a "Mutual Aid Association," for which a Constitution and By-Laws had been drawn up by the committee appointed at the last annual meeting. This motion was seconded, but developed quite an unexpected opposition. Dr. Cole opposed it as taking up the time of the Society, when there was a press of business that would occupy every minute. It was an important subject and should be thoroughly understood by every member before voting on the separate items there, for should there be no time after the regular business of this season, the matter had better lie over until the next annual session. Dr. Todd pressing his motion, Dr. Cheney opposed it as being not a medical matter, but a Life Insurance question. Dr. Babcock moved that it be taken up at the close of all "unfinished business." Finally the original motion was carried.

Dr. Cheney called up a motion made by him on 11th of October, 1871, to amend the Constitution providing that "no "physician be elected a member of this Society, from a county "having a local society, unless he be a member of the same, or "unless therebe some special reason for his election." This motion was seconded, and on a vote, carried unanimously. Dr. Pinkerton moved to proceed with the reading of reports from the committees, as the Chairman of the Obstetric Committee was obliged to leave very soon, and would like to read his paper at the present time—carried. Dr. Oatman then read a lengthy paper on "Obstetrics and Diseases of Women and Children," also on "the use of Quinine during Gestation," and on "the use of Veratrum Viride in Eclampsia." The paper was duly referred.

Dr. W. P. Gibbons read a paper on Indigenous Botany, referring particularly to *Grindelia Hirsutula*, and others common throughout the State. The paper was duly referred.

Dr. Todd then read an interesting case in which, on account of cancer, he had been compelled to amputate the

cervix uteri, in the second month of pregnancy. The case has now advanced to the eighth month, and the Doctor was anxious to await the close of pregnancy before referring his paper to the committee.

Dr. Logan asked the Society toincorporate in its publications his report made, concerning the Philadelphia museum, to the Sacramento Society. Permission given. The Doctor, as Chairman of the Committeeon Revising the Constitution, reported several proposed amendments, including one offered by Dr. Cheney, to the effect that "any member who fails to attend two successive annual "meetings, without excuse, or to pay his annual dues, "shall be dropped from the roll of members" Permission was asked to vote on the proposed articles now, but the opposition to any irregularity of proceedings was so great that the motion was withdrawn. Dr. Logan then moved to rescind the vote of the morning to the effect that at this time the Society go into Committee of the Whole; carried. The Board of Censors, having reported favorably on the applications of the following named physicians for membership, they were unanimously elected, viz.:

C. S. Kittredge	Oakland	Col.Phys.&Surg.,N.Y.	1863
T. W. Tilden	Chico	University Penn.	——
J. J. Sawyer	Cherokee Flat	University of Buffalo	1865
J. P. Widney	Los Angeles	Toland College	1866
S. Langdon	Stockton	New York University	1843

The Society then adjourned until 2 P. M.

AFTERNOON SESSION.

The Society was called to order by the President. Dr. Stout then read his Treasurer's report, which was referred to an auditing committee consisting of Drs. Simpson, Ferris and Todd. As Chairman of the Committee on the Cultivation of the Cinchona Tree, Dr. Stout presented a report, was referred for publication. Dr. S. next exhibited a splint for fracture of inferior maxilla; and also read an article which properly came under the heading of Hygiene. Referred to the committee. Dr. Simpson made a few remarks on Dislocations of the Astragalus, illustrating by citing cases. Dr. Van Wyck read a paper on the Differential Diagnosis of Typhus, Typhoid and Remittent Fevers. Referred.

At the request of the Sacramento delegation, the greater part of which had been obliged to leave by the noon train, Dr. Babcock moved to take up the amendment to the Cou-

stitution proposed on 12th Oct., 1871, viz.: "that Section 1, Art. IV., be amended by striking out, in the second line, the words 'second Wednesday in October,' and inserting 'second Wednesday in April,' as the time of the annual meeting." The principal reason for desiring the change was that the practitioners from malarial districts, being engaged more in the Fall than Spring months, could not so readily attend the sessions. After an effort to change "April" to "May," which was decided out of order, the original motion was carried.

The President suggested that now was the proper time for the appointment of delegates to the National Medical Association, but it was thought that the President for the year 1873 should make the appointments for that year.

Dr. Cushing read a paper on Obstetrics. Referred. The Board of Censors then reported favorably on the application for membership of:

John Gardner..	Yolo County.	St. Louis College.....1848 Rush. Medical College.1872

On motion, the gentleman was duly elected.

Dr. Todd called attention to the fact that one half of the deaths reported, in Stockton, were on account of dysentery. The Doctor then proceeded to read a lengthy paper on the disease as it appeared there, with treatment. Paper referred.

Dr. Scott agreed with Dr. Todd in the treatment of this disease by Ipecac, but did not consider 10 to 30 grains as "a large dose." In India, the usual dose is 60 grains.

Dr. Robertson, of Calaveras, read a paper containing an original theory as to the cause of the formation of urinary calculus, attributing it to stricture. He presented some specimens of stone, and also a penholder which he had removed from the bladder. The Secretary read several communications, including one from Dr. Davis, of Chicago, Chairman of Committee on Medical Education, in the American Medical Association.

The latter communication desired this Society to endorse its recommendations and enforce its suggestions. Dr. Babcock moved that the letter be received and placed on file. Simply giving as a reason, that in the present chaotic condition of the profession, on this coast, any attempt at enforcing such requirements would of necessity fail; that the action of the Society would remain a "dead letter" which was worse than no law; and that so long as no higher authority existed than the faculties of the several colleges,

nothing could prevent their graduating any person who might be able to pay his fees. The motion was carried.

On motion, the Society then adjourned until 7 P. M.

EVENING SESSION.

The Society was called to order by the President. Dr. Morse moved the adoption of the following: "*Resolved*, that "the thanks of this Society be returned to the Committee "of Arrangements for the efficient manner in which they "have performed their duty, and to the physicians of Oak-"land for their hospitable and fraternal treatment. *Resolved*, "that a vote of thanks be tendered the retiring officers for "the faithful and zealous manner in which they have per-"formed their arduous duties." Carried unanimously.

It was moved and carried that the Secretary inform the members of committees of their appointments so soon as such designations are made. After the transaction of some very important business a motion was made to adjourn *sine die*, before this was stated, the President arose and said: "I do not desire to detain you, but I must express the feelings of my mind. I have never attended a session of a deliberative body, extending through two days, in which so little time was wasted, and this is saying a great deal when speaking of a Medical Convention. [Applause and laughter.] Never before have I seen presented papers of a more useful and substantial character. They indicated worth, inquiry, love of our science, love for the profession. I regard the papers that have been read here as possessing very decided and positive value, and another consideration, and that by no means the least important, is, that we have transacted our business without any embarrassment or quarreling, and without the expression of a single word that could, by any means, be construed to indicate feeling. Under these circumstances I feel greatly gratified to have been your presiding officer.

"I thank you for the courteous deportment you have exhibited, for your forbearance towards me in the discharge of my duties, and I beg you to accept my profoundest thanks for the services you have rendered the profession as well as myself. [Applause.] This Society now stands adjourned *sine die*."

[The members then proceeded to Newland's Hotel, where the Alameda County Medical Association had provided a collation which was presided over by its President, Dr. Van Wyck. Unfortunately the last train for San Francisco could

not be delayed beyond 10.30 P. M., at which hour the majority left, having partaken of viands, wines and cigars q. s. for their own comfort, but only half of the dose prescribed by their host.—ED.]

Meeting of the California Pharmaceutical Society.

The fourth annual meeting of the California Pharmaceutical Society, was held on the afternoon of the 9th of October; at 3 o'clock. President Bauer in the chair.

The minutes of the previous meeting were read and approved.

According to order of business, nominations for offices were next made. The reports of committees being in order, Mr. Steele read the report of the Board of Directors which was a most exhaustive document, one, which for completeness and thoroughness of detail, has seldom been presented before a similar meeting. Many new subjects were laid before the members, the most important being in relation to the establishment of a college of pharmacy.

The report treated on the following subjects: "Condition of the Society," Pharmaceutical Legislation," "The Inauguration of the College of Pharmacy," "Unofficinal preparations," "Professional Emoluments," etc., etc.

The annual address of the President was next presented. In this report, the President congratulated the members upon the advance made in numbers and influence by the society in the past year; he touched upon the following topics, devoting a brief space to each, "Meetings of the Society," "The American Pharmaceutical Association," "The San Francisco Pharmacy Act," "The Board of Pharmacy," "The California College of Pharmacy," and "The Future of the Society." This report met with the warm approval of the meeting. The reports of the Recording Secretary and the Treasurer showed a large increase in the roll of members and a healthy state of the finances of the society. The election of officers being next in order, the following gentlemen were appointed to serve the ensuing year: President, W. T. Wenzell; First Vice-President, Wm. Simpson; Second Vice-President, G. G. Burnett; Recording Secretary, J. W. Forbes; Corresponding Secretary, H. B. Shaw; Treasurer, W. J. Bryan; Board of Directors, Messrs. Calvert, Searby, Beideman, Forbes and Steele.

On motion, the thanks of the Society were extended to

the retiring officers for the enthusiastic zeal with which they had fulfilled the duties involving upon them.

The annual dinner of the Society took place in the evening, twenty-one members being present. Appropriate toasts were offered and responded to by the several gentlemen called upon, and a spirit of harmony prevailed such as will occasion this to be long remembered by those who were so fortunate as to be present.

The members of this Society have cause to feel gratified at the position it has taken upon the important subjects relating to the practice of pharmacy upon the Pacific coast, and that it will steadily advance to the position so long occupied by its sister societies of the East will be the earnest endeavors of all of its members.

HENRY B. SHAW,
Corresponding Secretary.

Specialties in Medicine.

It is not a very long time since it was the general opinion of the profession that a "specialist," if not a quack, was a good imitation of one. Within ten years, indeed, a committee of the American Medical Association solemnly presented to that body a report adverse to the practising of specialties. We have not that report at hand, but we know that it met the approval of many men of great good sense and of no narrow views.

And yet the "inexorable logic of events," the constantly increasing practise and influence of specialties, is, it cannot be denied, settling this question in just the opposite way. A few words will show why this is, and how any tendency to evil in this quarter is to be averted.

In the remoter country districts, in small villages, and even in towns of some size, the "doctor" attends alike to labor-cases, fractures, dentistry, fevers—all the ailments of the neighborhood. Under this system, one scarcely knows whether to wonder more at the ability and skill which some of these hard-worked brethren develop, or at the needless waste of precious life which the stupidity and ignorance of others do occasionally involve.

As population increases, in larger towns and in cities, and with it the number of physicians, there are certain men who deservedly acquire a reputation for skill in certain cases, and about whom practice crystallizes, as it were, in these special lines. Success in surgery legitimately brings other surgical patients; in midwifery, other obstetric cases; and

so on. All this is clear; and now, when we consider the vast advances of modern science, and the wide range of reading necessary to keep pace with the literature of any one branch of practical medicine, is it not obviously for the benefit both of the profession and of the people that each workman should have a chance to thoroughly cultivate a smaller field, rather than to cover more ground less effectively?

We contend that so long as a complete medical education is required of every graduate—a thorough foundation upon which the study of any special branch may be based—advantage only can arise from the subsequent partition of the field of labor. Such a system would by no means tend to produce surgeons who could not recognize pneumonia, or physicians who could not detect an ordinary fracture: it would not develop *narrowly*, but *highly* cultivated men. This universality of education is the great safeguard, and will always keep the scientific specialist distinct from the quack.—*Medical Times.*

The American Pharmaceutical Society.

The twentieth annual meeting of this body was begun in the Central Rink at Cleveland, Ohio, on the 3d of September, and lasted four days. Its proceedings, although not of immediate interest to physicians, will doubtless be of indirect value to the profession at large, affecting, as they will, the progress of so important an auxilliary to medical science.

We note that a proposition for taking the business matters of the Association out of the hands of the members, and placing them in charge of a Council, was not favorably entertained; a motion to indefinitely postpone the subject having been carried without a negative vote.

Another important item was the reading, by Prof. William Procter, Jr., of a communication from the lamented Edward Parrish, on the subject of the preliminary education of young men proposing to qualify themselves for carrying on the drug business, and what preliminary examination, if any, should be required by the colleges of pharmacy. This paper is said to have been "of exceeding interess," and we judge that it took the ground that much higher qualifications should be demanded than at present. A full report of it may be looked for in the proper channels.

The next meeting of the Association will be held in Richmond, Virginia, beginning September 18, 1873.—*Medical Times.*

MONTHLY REPORT OF DEATHS IN THE CITY OF SAN FRAN-

By C. M. BATES, M.D., Health Officer. *No. of Deaths corresponding*

CAUSE OF DEATH.	Total	AGES.																SEX.	
		Under 1 year	1 to 2	3 to 5	5 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	Over 100	Unknown	Male	Female
I. ZYMOTIC.																			
Variola	2	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	2	..
Diphtheria	5	1	..	2	1	1	..	..	..	..	..	..	..	..	..	..	..	3	2
Croup	4	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1
Whooping Cough	3	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Fever, Enteric or Typhoid	7	..	..	..	1	1	..	3	1	1	..	..	..	..	..	..	..	5	2
Cholera Infantum	8	6	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	5
Pyæmia	4	..	..	..	..	..	..	..	3	1	..	..	..	..	..	..	..	3	1
Other diseases of this class	10	1	..	1	1	..	..	2	4	1	..	..	..	..	..	..	..	6	4
II. CONSTITUTIONAL.																			
Cancer Undefined	3	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	2	1
Cancer of Stomach	2	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	1	1
Cancer of Uterus	2	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	2
III. TUBERCULAR.																			
Phthisis Pulmonalis	42	..	1	..	1	1	2	9	12	11	4	1	..	..	..	..	..	29	13
Hydrocephalus	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
Other diseases of this class	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
IV. LOCAL.																			
Congestion of Brain	4	1	..	1	..	..	..	..	2	..	..	..	..	..	..	..	..	2	2
Meningitis	9	4	3	1	..	..	..	..	..	1	..	..	..	..	..	..	..	5	4
Apoplexy	6	..	..	..	..	..	..	..	..	2	2	1	1	..	..	..	..	5	1
Tetanus	2	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	..
Other diseases of this class	8	1	..	..	1	..	..	1	1	1	1	2	..	..	..	..	..	6	2
V. CIRCULATORY SYSTEM.																			
Aneurism of the Aorta	3	..	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..	3	..
Aneurism, undefined	2	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	2	..
Dropsy	3	..	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..	2	1
Heart Disease, undefined	6	1	..	..	2	..	..	..	1	1	..	1	..	..	..	..	..	4	2
Other diseases of this class	7	..	..	..	..	..	1	..	1	1	2	2	..	..	..	..	..	6	1
VI. RESPIRATORY SYSTEM.																			
Bronchitis—Acute	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Congestion of the Lungs	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..
Pneumonia	12	2	1	1	..	..	..	2	2	2	1	..	1	..	..	..	..	8	4
Asthma	2	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	2
VII. DIGESTIVE SYSTEM.																			
Enteritis	12	9	..	1	..	..	..	..	..	1	1	..	..	..	..	..	..	5	7
Cholera Morbus	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Peritonitis	2	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	1	1
Ascites	2	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	2	..
Hepatitis	2	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	1	1
Other diseases of this class	3	..	..	..	..	..	..	1	..	2	..	..	..	..	..	..	..	2	1
VIII DEVELOPMENTAL.—CHILDREN.																			
Premature Birth	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Convulsions.—Infantile	14	13	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	8
Teething	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
IX. WOMEN.																			
Childbirth	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Uterine Hemorrhage	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Metritis	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
Permature labor	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
X. OLD AGE	2	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	1	1
XI. NUTRITION.																			
Atrophy	14	12	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	8	6
Inanition	7	6	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7
Debility, General	4	1	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	3	1
Cancrum Oris	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
XII. ACCIDENTALS	4	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	3	1
XIII. SUICIDE	5	..	..	..	..	..	..	1	..	1	1	..	1	..	..	..	1	3	2
XIV. SYPHILIS	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..
XV. NOT SPECIFIED OR ILL DEFINED	16	2	1	..	..	..	1	3	5	1	2	..	1	..	..	..	..	12	4
TOTALS	260	72	15	12	9	4	4	29	42	35	17	12	5	2	..	..	2	158	102
XVI. STILL BORN	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13	1
XVII. BIRTHS REPORTED	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	20	1

CISCO, CALIFORNIA, FOR THE MONTH OF SEPTEMBER, 1872.

Month of 1866, 242; 1867, 217; 1868, 334; 1869, 270; 1870, 309; 1871, 300.

RACE.			WARD.																NATIVITIES.			
Caucasian	Mongolian	African	1st Ward	2d Ward	3d Ward	4th Ward	5th Ward	6th Ward	7th Ward	8th Ward	9th Ward	10th Ward	11th Ward	12th Ward	Public Institutions	Casualties	Suicides	For'gn Co'nt'ies	Atlantic U. S.	Pacific U. S.	Unascertained
1	1				1										1			2			
5							1			2				2						5	
4				1		1					2									4	
3				1				2												3	
6	1		2							2	2			1				6		1	
8				1						1	3	1	1	1						8	
4								1						1				4			
8	2		1	2			3	1				1	2					5	3	2	
3										1			1	1				2	1		
2									1					1				2			
2									2									1	1		
36	5	1	1	3		8	1	2	1		2	7	1	1	15			30	7	1	
2									1			1								2	
2													1		1					2	
4				1		2						1						2	1	1	
9				1				1	1	2	2			1	1			1		8	
6			1	1			1			1		1		1				4	2		
2										1			1							2	
8						1	1		1				1		4			5	2	1	
3						1									2			3			
2												1			1			1	1		
2	1					1						1			1			2	1		
6				1					1	1			2		1			2	1	3	
7												3	1	1	2			4	2		1
1						1														1	
1															1				1		
12										1		3	3	1	4			6	2	4	
2													2					2			
12				3				2		2		2	2		1			2		10	
1											1									1	
2												2						2			
2												2						2			
2															2			2			
2	1			2											1			2	1		
3											1		2							3	
14			1	1	1	2		1		3		2	1	1	1					14	
1				1																1	
1												1						1			
1														1				1			
1				1															1		
1														1					1		
2								1				1						2			
14			1			2				2	1	5	3					2		12	
7													2		5					7	
4										1		1	1	1					1	3	
1														1						1	
4																4		2		1	1
5																	5	2	2		1
	1				1													1			
5	11				4		4				3				2			12		4	
236	23	1	7	23	1	24	4	14	10	17	13	44	25	17	52	4	5	117	31	109	3
27	1																				
36																					

Dr. J. M. Toner, of Washington, whose reputation as a reliable statistician is well known, has issued a circular giving extracts from an address delivered by him, on "Vital Statistics in the United States."

A copy of this has been sent us, and we trust it will be furnished every medical man throughout the country. It contains some startling facts derived from the official census which point to a physical degeneracy, sad to contemplate. We would like to publish the entire circular, but as that is impossible we will give a few extracts:

"The statistics of our country are entirely inadequate to show what proportion of the population of a marriageable age are living in wedlock; but that there is a decline is, I believe, evident to any person who will reflect for a moment upon the subject. History seems to confirm the theory that the rise, strength and decline of nations are invariably manifested by the redundancy or meagerness of their male population. The once grand and powerful nations of Greece and Rome owe their decline to their failure to produce men. It may be laid down as a rule that luxury, vice and idleness will, in any State or country, check the natural increase of human beings, and, if not reformed, will work its destruction.

* * * * * * * * * *

"The United States census for 1850 shows 28 persons to have died in every 2,000 of the population. In 1860 the census shows 25 deaths to every 2,000 of the population, which, in the ten years, represents an increase of vitality equivalent to three persons in every 2,000. The rate of mortality in the United States, deduced from the census returns of 1850, 1860 and 1870, shows (according to a table given ED.) an average, for the three census years, one death to every 76.63 of the population, or 1.305 per cent.

"A law of nature, almost uniform throughout the world, produces a greater number of male than female births. The excess ranges in different countries, and at different periods, from 1 to 12 in the 100. The rate of excess in the United States is about 6 in the 100. * * * * *

"This excess of males does not continue, or is not constant and uniform through life. Aggregating the population of the United States, there are more females than males at the age of 20, and again between the ages of 70 and 100."

Dr. Toner then describes a series of diagrams and tables he has constructed, showing the particular age at which the males or females are the most numerous in any or all the

States, and then comes to a subject of the greatest importance, namely, the registration of births, and expresses surprise that, in this country, we should take the greater pains to record deaths. He is unaware of any reliable statistics giving the birthr-ate for our country, but, quoting from that given in two of the States, and from the percentage of births in the city of Providence, R. I., for 13 years, as given by Dr. Snow, he concludes "that the native stock is less fruitful than the foreign-born residents in our country," and adds:

"With a desire to view this question of birth-rate from a standpoint that would be sufficiently comprehensive, and yet free from even the appearance of preconceived notions or sectional partiality, I have made something of a study of what the records of the United States census teach upon the subject of population, in its enumeration by ages; also of births, deaths, etc. From this source I find undoubted evidence of a gradual decline in the proportion of children under 15, to the number of women between 15 and 50 years of age in our country."

Explanation is then given of some tables which show the number of white children to the 1,000 white females of the age specified in each State, at every decade since 1800, and says:

"It must be borne in mind that in 1800, 1810 and in 1820, the ages are, of children under 16, and of women between 16 and 45, in the subsequent years, children under 15 and women between 15 and 50. This gives one more year to the children and six years less to the women previous to 1830.

"I don't propose to adopt any theory, or to attempt to explain this extraordinary condition. It is proper that the profession and the country should be made acquainted with the facts, and made to realize that the American people, in this particular, are showing unmistakable signs of physical degeneracy. I have embodied facts only, and leave the enlightened understanding of the American people to assign the reasons from the evidence everywhere around them, and to apply the remedy."

In regard to the colored race, its birth-rate is also declining, though less rapidly than that of the whites. This circular shows a great mortality among young children, and suggests either bad constitutions inherited, or a great error in the mode of bringing them up.

"Of the 393,606 deaths recorded as occurring in the United States for the year ending June 1, 1860, 168,852

(nearly one half) occurred under five years of age; and nearly one fourth of the whole number under one year!"

A diagram is constructed from the census of 1860, showing the aggregate mortality by age and sex. It shows a great excess of male over female deaths under one year, and even under five years, and more, it shows that the "excess of male deaths under one year is more than treble the proportion of the excess of male births reported for the United States!"

The author is unable to assign any satisfactory reason for this.

We have quoted thus freely from the circular to prove that the frequent assertion of medical men, that we *are* degenerating is borne out by facts. It should set all at seriously meditating on the cause, and laboring to devise a remedy for the effect. It is a subject worthy of our deepest thought, and the way of escape from the results of national degeneration must be pointed out by medical men. Dr. Toner deserves great credit for his zeal in prosecuting this study, and for the emphatic manner of placing it before the public.

A MANUAL OF QUALITATIVE ANALYSIS. By ROBT. GALLOWAY, F. C. S.; from the fifth re-written and enlarged English edition. Illustrated; pp. 402. Phila., H. C. Lea; San Francisco, A. Roman & Co.

To attempt to give an exhaustive review of this little work would be impossible in the limits of a journal. The author is a *practical* chemist, and he has most admirably succeeded in making a practical book. The notation adopted is the new German, and will not be at once familiar to practitioners in our country, but the arrangement of the work is such, that when first the new language is acquired, the student progresses from one group of bases by slow and complete advances to the next, making a knowledge of the one perfect before the successor is attempted. Analyses and a series of examination questions are given at the end of each group or division of the book, and they are so arranged as to tell if the student has merely committed to memory what he has gone over, or has studied it so as to be capable of reasoning on the subject. We commend the work to all students in the specialty, and to all practitioners who desire to be able to perform for themselves what now they must delegate to others.

U of M

TRANSVERSE SECTION OF COLON.

Page 648.

no vote was taken, and the question remains open. It will be again presented.

well introduced in the practice of English oculists, but which is only applied after complete cicatrization and the strengthening of the cicatrix. Is it very necessary to wait so long, and may not the India ink be applied to the wound in course of cicatrization? We permit ourselves to express an opinion; one might thus, it appears to us, obtain a larger tattooed surface more promptly, and more uniform. The question is to know whether the presence of the foreign body would interfere with the process of cicatrization. It is to be tried.

Sympathetic ophthalmias were made, on the part of M. Warlomont, the object of propositions with regard to which their author had desired to provoke a vote of the assembly. They were thus expressed:

1. When an eye is *lost* by whatever cause, traumatic or other, where the stump which represents it is the seat of a continued or intermittent sensibility, or of an acute or chronic inflammatory state, it is able to give rise to sympathetic accidents to the other eye. These sympathetic irritations may manifest themselves even in the absence of any appreciable irritation on the part of the organ primitively affected. In either case, the enucleation is indicated.

2. It is important to proceed with it as soon as possible after the manifestations of the first symptoms, when the sympathetic influence has already given place to an iridocyclitis with exudations, the enucleation is almost always without effect, *because it is tardy*.

When an eye has just been *destroyed* by a traumatic cause, a great service may be rendered to the wounded individual, by disencumbering him of it on the spot; that is to say, on the same day of the accident and before the development of consecutive inflammatory accidents. One thus spares him the results of traumatism, ophthalmitis, etc.; one restores him, so to speak, on the day after, to his business, and one preserves him from sympathetic ophthalmia with certainty. Preventive enucleation in these cases should be encouraged. It should be made without hesitation if the eye encloses a foreign body.

The author of these propositions, in calling for a vote of the congress on them, had it in view to settle a point of practice, rather than of doctrine, important in a medico-legal point of view and in that of the military service. In spite of the support of a large number of members, he was not able to accomplish these purposes, on account of respectable scruples. The discussion, which was very animated, was unavoidably interrupted and was not resumed; no vote was taken, and the question remains open. It will be again presented.

An important point was settled during this same session. It will be remembered that at the congress of Paris, of 1867, M. Javal communicated his observations *on the employment of the metrical system for the numbering of glasses and spectacles*, and that a commission composed of MM. Giraud-Teulon and Javal (France), Nagel and Leber (Germany), Donders (Holland), Sœlberg Wells (England), and tto Becker (Austria), were instructed to examine this question, and to proceed to a ruling which should be amiable and harmonious on this subject. M. Javal has presented a work which may be considered as a report of the commission, in which he concluded to adopt a series of glasses having for base a glass of 240 *centimetres*. In consequence, the members below enumerated have signed a declaration by which they express the intention to employ after July 1, 1873, the metrical system and the series of glasses mentioned in the report, for the purpose of indicating degrees of ametropia.

[Here follows a list of names, including a majority of the most celebrated oculists of the world.—ED.]

Let us mention among other communications:

1. That of M. Schrœter (of Leipzig,) *on the binocular opthalmoscope*, henceforth to be perpetuated in Germany. Thus, eleven years have been necessary in order that the instrument of Giraud-Tenlon might impose itself upon the practice there, because his invention reaches back to the year 1861. (*V. Ann. d'Oculistique t.* 45, *p.* 233.)

2. That of M. Teele, *on the operation for symblepharon*, for which he has invented a new and ingenious proceeding;

3. That of M. Bader, *on tattooing of the cornea;*

4. The presentation of two *ophthalmoscopes for a number of observers*, the one by M. Carter, the other by M. Hogg; and that of the perimetre by M. Carter.

5. The exposition of a proceeding for the *tearing (or opening) of the sheath of the optic nerve*, by M. Wecker.

6. That of a case of lateral irideremia and of another of division of the superior rectus muscle, by M. Argyll Robertson, etc., etc.

Others of merit we must omit to mention.

MM. Bowman and Donders presented themselves as speakers only during the last meeting. One may judge of the religious silence in which they were listened to. The first spoke of a new method of iridectomy, of the employment of the trephine in the treatment of Kerato-conus, and of other modes of operating for this affection, and presented some new instruments for the treatment of obstructions of

the lachrymal tracts. The second, after having demonstrated a new instrument of *optometric*, examined what we will term, *The case of M. Fœrster*, then presented some ideas on diverse anatomical alterations of the cornea and their treatment. We do not wish to deprive these valuable communications, the first of which belongs to the official compte-rendu, of their interest, by an analysis which we would only be able to make incompletely. We will only say, in a few words, because it constitutes the rectification of an error which must not be allowed to infiltrate itself, in what consists the communication of M. Donders relative to an assertion of M. Fœrster:

"Although it may be true," said M. Donders, "that "aphakia does not prevent reading of certain characters at "different distances, the acuity of vision diminishes regu-"larly to the degree that one is removed from the exact "point for which the glass corrects the refraction, and, "therefore, there is no reason in attributing the faculty of "seeing at different distances without changing the glass to "a veritable accommodation. The pupil being narrow and "the acuity of vision being sufficiently great, the accommo-"dation apparently becomes very extended, but does not "the more exist in reality."

Before separating, the Congress had, in the execution of Art. III of the By-Laws, "to determine the place of its "next re-union, and to nominate a provisionary executive "committee at the said place."

The evening before two propositions had been made: the one signed by the Spanish oculists present at the Congress, demanding in the name of their national colleagues, that the next session should be held at Madrid; the other from the American physicians insisting that this session should be held at New York in 1876. They fixed this date for the reason that on the one hand, in conformity with the rules which assigns an interval of four years between two sessions, and on the other in order that the Congress might profit from the solemnity which will accompany, in 1876, the centenary celebration of the Republic of the United States.

MM. Cervera, Delgrado (of Madrid), and Carreras, (of Barcelona), earnestly insisted that the preference should be given to Madrid. "Our country," said they, "is in a "period of renovation and of progress; you will be wel-"come there, you who disseminate light wherever your steps "lead you. It is not only to learn that you meet period-"ically in strange countries, it is also to instruct, to inspire "and propagate a taste for our beautiful specialty. In "Spain, you will have in this direction a grand role to play,

"because, to use the expression of our illustrious presi-
"dent, you will find men there ready to give the little that
"they have, but especially avaricious to receive all that you
"are able to bring to them."

MM. Williams (of Boston), and E. Williams (of Cincinnati), were the natural advocates of the United States; they pleaded their country's cause in their simple and persuasive language:

"Come to New York; you will see there a country one
"hundred years old, the rapid elevation of which is due to
"the progress of the sciences, by which it is incessantly up-
"held; you will see there a people free and proud of an
"independence which has no limits; you will see there,
"especially, brothers happy to receive you, happy of the
"honor you will confer upon them in visiting them at their
"home; finally, you will see, if the heart prompts, the trees
"of California, with trunks immense, the summits of which
"lose themselves in the heavens; and, that which cannot
"fail to interest you, *the largest cataract in the world.*"

Hesitation was to be permitted. Without doubt a Congress in the United States would attract more than one of us; but, it is not necessary to dissimulate it, it would exclude a great majority, and on that account the next efficacious reunion would be adjourned to eight years. This is quite long. M. Warlomont proposed this decision, to facilitate the success of a Congress in America, in deciding that the periodical international Congress should meet at no other place in 1876, but to decide, at the same time, that a session should take place at Madrid, either in 1875 or in 1877. This combination, not conforming to the rules, was duly rejected. Shall a congress be held in 1876? Such was the first question proposed by the president; answer unanimously in the affirmative. Shall it be held at New York or at Madrid? Majority in favor of New York.

In consequence, the next session of the International Congress of Ophthalmology will be held in the United States, in 1876. The provisionary committee, designated by the congress to organize it, is composed of MM. Agnew, Noyes and Roosa (of New York).

[TO BE CONTINUED.]

Editorial.

We have received from Dr. Shurtleff the President of the State Medical Society, the following list of chairmen of Standing Committees. It will be remembered that the next session of the Society will be held in Sacramento on the second Wednesday in April next. In making these appointments, it will be seen that the President has selected those who *will* attend to the duties, and *can* write their reports; there is no attempt at complimenting drones or dummies, and with active men at the head of committees the various members can be made to perform the little required of them. As soon as the other members are chosen, the Secretary will notify them, and we expect to publish the list entire in our next number.

We congratulate the Society on the prospects for the next meeting. The officers were elected with perfect unanimity, the selection following is as good as could be made, and is composed of those *who attended* the last session, thus showing their continued interest in the Society; with such men to lead, and the hearty welcome and support the Society is sure to have from our Sacramento brethren, we have the promise of the best reunion yet enjoyed by theprofession on this coast.

CHAIRMEN OF THE STANDING COMMITTEES.

On Practical Medicine, Medical Literature, and Hygiene. HENRY GIBBONS, M.D., of San Francisco.

On Surgery. G. G. TYRRELL, M.D., of Sacramento.

On Obstetrics. R. B. COLE, M.D., of Oakland.

On Medical Topography, Meteorology, Epidemics, and Endemics. D. B. HOFFMAN, M.D., of San Diego.

On Indigenous Botany, and the Domestic Adulteration of Drugs. W. P. GIBBONS, M.D., of Alameda.

On Medical Education. J. P. WHITNEY, M.D., of San Francisco.

On Prize Essays. A. W. SAXE, M.D., of Santa Clara.

On Arrangements. J. F. MONTGOMERY, M.D., of Sacramento.

On Publication. T. M. LOGAN, M.D., of Sacramento.

We extract the following from the *Mining & Scientific Press*. It is more than likely that the adoption of a similar "safeguard" here would lessen our annual mortality among infants.

A GOOD IDEA.

"The *American Chemist* has a notice of a new social safeguard in England, which promises to become a terror to evil-doers. To sand sugar and water milk are vile practices which—the latter especially—have been so laughed at as good jokes on city people, that they have not received the punishment they deserve. The blue cow's tail, which is the pump handle, has figured in cities since milk was first dispensed; how much water might be put in was only limited by the scarcity of milk, the rapacity of dealers and the patience of customers. But the much suffering English people are at last to be protected. Official chemists have been appointed by a recent law as public analyzers; they are empowered to examine suspected articles of sugar and milk, and, if they find them adulterated, to summon the persons who supplied them before the magistrate. For the first offense the penalty is a fine of $250; and for the second, imprisonment at hard labor for six months. In order to make this practical, any buyer who has been thus cheated may have the article analyzed on payment of a small fee, which will be returned to him and charged in the costs of court to the seller if the examiner's report is adverse. Such a law, if found of ready application abroad, should be enacted in this country. It can injure none but the fraudulent seller; and the abolition of 'sky-blue' would insure comfort, soothe ruffled tempers, and make happy and thriving babies."

We call attention to the extract from the report of the Board of Directors of the State *Pharmaceutical Society*, to be found in the miscellaneous department of this number. It is a perfectly clear and exhaustive description of the Eucalyptus, which has so recently been introduced to the profession. If an extended use of its preparations will, in the treatment of intermittents alone, give the satisfaction claimed, it will prove of inestimable value to us who can easily obtain the remedy, and to mankind at large, which

will be spared the expense of the preparations of cinchona, not to speak of the uncertainty of its supply when, from any cause, like that of our late war, a large population is cut off from its use. The tree is easily raised in almost every climate, and it will become a domestic remedy of far more value than the gallons of "patent medicine" now almost flooding every hamlet throughout our land. It has even been degraded into a nostrum already, but a more extended knowledge of its virtues will soon deduct from the profits of the so-called "Doctors," who "patent" and cover with secrecy whatever is valuable and should be free to suffering humanity.

We call attention to the annual address delivered before the San Francisco Medical Society by Dr. J. P. Whitney, and to be found in the miscellaneous department. We have not favored the filling of our pages with addresses, as is too often done when instructive professional matter is wanting, and with the exception of Dr. Dawson's address to medical editors, published in June last, this is the only exception to our rule. In each instance we have considered the address as of more than usual merit, either on account of its historical or professional research.

The suggestion of Dr. Whitney, that a Board of Examiners, connected with the State University, shall determine the qualifications of candidates for diplomas and pass favorably in no case admitting of a reasonable doubt, is a valuable one. Surely, in no part of our country is such a salutary (sanitary) law more required. We have full confidence that in time we will see this step towards the Doctor's millenium taken. It is expecting much from a young country like California to lead off in such a measure, but younger ideas may accomplish at times what older heads have hesitated at. We commend the entire address to our readers, and would wish the lay public to have access to it, more especially to those sentences referring to the popular humbugs of our day.

Miscellaneous.

Annual Address to the San Francisco Medical Society, Delivered Nov. 12th, 1872. By J. P. WHITNEY, M. D.

MEDICAL CRITICISM.

I claim indulgence for a few thoughts on medical criticism, particularly as applied to some of the leading medical doctrines which have from time to time instructed, amused or perplexed medical men and medical societies ever since the "healing art" began to put forth pretensions to the dignity of a science.

The nature of the facts to be dealt with and the nature of the human mind in its relation to these facts, present difficulties in the way of observation, experience and induction which, though great are by no means insuperable to those who believe, as I do, that medicine can never become either a perfected art or a positive science, from which the rules of art can be adduced and dogmatically taught, but that it will continue a progressive scientific art with its principles of science and rules of art, requiring and requiting the highest intellectual power and culture for their proper interpretation and application.

There is ample room here for the exercise of all the senses in their highest state of culture, aided by all the ingenious appliances which modern science and art so lavishly furnish. There is room for the exercise of all the available powers of the numbers in which the speculations of Pythagoras culminated—there is room for the exercise of all the functions of the Aristotelian syllogism, and Lord Bacon's assertion may even then continue true, that "medicine is more labored than advanced." A "*ne plus ultra*" is not likely to be attained—there will still be more beyond.

It is difficult to conceive of a time so early in the history of mankind that no thought was given to the subject of human health and no effort put forth for its preservation or for its restoration when deteriorating. That the first efforts in this direction were prompted by instinctive impulse, which humanity gets from animality may be argued, not only from nature, but from what is generally received as revelation, for both alike assert that "man is made of the dust of the ground and becomes a living soul." "That is not first which is spiritual, but that which is natural; afterwards that which is spiritual." Whilst I believe that man

is made in the spiritual "image of God," I have not the least doubt that he was first made in the physical likeness of an animal; that he attains to instinctive animality before he does to intellectual or moral divinity of type.

Egypt cultivated medicine earlier than any other nation of which we have authentic history. Of the numerous books ascribed to Hermes, were at least six on the different branches of medical science and art. The custom prevailed there which did at a later date in Babylonia, and still later in Greece, and from which medicine as a science appears to have originated. The sick were exposed to public view, that they might get the advice of those who saw them, and had been or had seen others similarly affected, who by the use of medicines had recovered. After the invention of writing such cases and remedies were recorded, and those records were placed in their temples where all could have access to them and each select the remedy thought most appropriate to the case.

The myth runs that Chiron held a school in a Thessalian grotto, where he taught the principles of art, politics and medicine. Hercules and Æsculapius were among the number of his pupils, and the myth regarding Æsculapius has been traced back to nearly fifteen hundred years before Christ. About fifty years after the Trojan war, and about twelve hundred years before Christ, a temple was erected to Æsculapius, probably first either at Rhodes, or at Epidaurus in Argolis. These soon multiplied throughout the then world which recognized the Greek civilization. Those of Epidaurus, Pergamos, Cnidos, Cos and Crotona, have each obtained a name in history. They were each presided over by one of the members of the Æsculapian priesthood or Æsculapii; that of Crotona, in Italy, by Pythagoras; and that of Cosby Hippocrates, the oft-named "Father of Medicine."

These temples were built in the most healthy places that could be found, and often near some mineral spring. Their walls were hung with votive tablets, on which were inscribed the histories of the diseases which had been cured in them, and the remedies with which the cures had been wrought. The few of these records that have come down to our time contain such a strange mixture of facts and fancies, that we wonder if Hippocrates could have obtained from this source much valuable aid in making the grand deductions embodied in the "Aphorisms." Take this as a sample: "Julian appeared to be in a hopeless state after an attack of spitting of blood. The god, by means of the oracle, ordered him to come and take a pine cone from the altar, and to eat this

mixed with honey, for three days. He was cured, and came and thanked the god before all the people."

This is probably a fair sample of those inscriptions. As these records accumulated, it became necessary to put them in order for ready consultation. Those appointed to the duty of arranging them, soon acquired valuable knowledge, not only of the composition of different medicines, but also of their remedial qualities, as well as the particular characteristics of the case to which each was applicable. By imparting to each other the results of knowledge acquired in this manner, and thus correcting mutual deficiencies, they came in time to be so well versed in the art of prescribing, that they were consulted by those having occasion for medical advice. To this condition had medicine arrived when the Æsculapian temples of Rhodes, Cnidos and Cos, in the Grecian archipelago, and of Crotona, in Italy, were established.

The true method of investigation of any subject by the intellectual powers, is by the collection of facts, by the observation of phenomena, the comparison of observation, the tracing of sequences, and the formation of hypotheses which harmonize the facts collected with the phenomena observed, the observations compared and the sequences traced, and that is the best hypothesis which explains most of the observed phenomena, and that alone is the true theory which harmonizes, explains and accounts for all the facts and phenomena even when subjected to the severest criticism.

Art may exist without theory; but science, never, because science in its nature is the true theory of things, and is susceptible of demonstration, or it deserves not the name of science.

Let us now subject some of the leading hypotheses, which have been put forth as medical science, to the rules of logical criticism.

Art adjusts means to attain ends, and has usually preceded by its rules the theorems by which science came afterwards to explain and guide their operation. Bleaching, dyeing, tanning, and many complicated metallurgical processes were carried as arts to a high degree of perfection, before there was any science of chemistry to explain the rules by which they wrought. Good wine was made before there was any theory of fermentation. Glass, before science had traced the relations between the alkalies and earths; sweet music was discoursed long before there was any science of acoustics; and painting, exquisite in all the beauties of blended coloring and perspective not only, be-

fore there was any science of optics, but before any more was known of the nature of light than its contrast with darkness. All medical knowledge has been deduced primarily from accumulated experience; but by comparing and analyzing the results of experience, reasoning upon the empirical rules thus framed and bringing them under some general principle, the *art* begins to take the form of a *science;* to become a scientific art; and, in the highest development to which it has yet attained, or, in my opinion, from the nature of its facts can *ever* attain, it is and will be nothing more. Yet there have been and still are those who by the magical power of some method, expect medicine to be transformed into a purely inductive science, the theorems and axioms of which will have all the force and precision of those of logic and mathematics.

Rousseau says: "Science is in the facts and phenomena of nature and their relationships, and not in the mind of man, which discovers analyses and interprets them." Upon this view, science can have nothing to do with transcendental or speculative notions about "final causes," but only with secondary causation, or facts and sequences.

Those who think with the late Professor Whewell, that "We must analyze the idea of life in order to obtain a science of Biology," and that "The idea of the vital forces may become thus so clear and definite as to be available in science, and propositions elevated as far above those involved in the demonstration of the circulation of the blood as the doctrine of gravitation goes beyond the explanation of the motions of the heavenly bodies by the hypotheses of Epicycles, may "constitute the fundamental propositions of the physiology of the future," should be strict in their analyses of the idea of life, and accurate in their diagnoses of disease.

Let such investigators not forget that a proper diagnosis includes all and every important circumstance in the case, and gives concisely the opinion formed of it, as well as the grounds for such opinion. When thus made out from facts well observed, and conclusions logically drawn, it can not be far out of the way. This is to "diagnose," or in plain English to know a case thoroughly, or through and through, and is widely different from that loose guessing which is often dignified with the title of diagnosis, and upon which so many cases are not only treated but entered in case books, health reports, and mortality bills and published to the world in medical journals to the further vitiation of our already too vicious statistical literature. Whilst theories serve important purposes in leading investigation and

imparting energy and perseverance to the pursuit of facts, both by observation and experimentation, they also tend to bias the minds of all who adopt them, and lead to partiality in judging any given case included under a favorite theory.

A numerical devotee, noticed by Herbert Spencer, laboriously collects figures to prove that matrimony is more conducive to health than celibacy. Census returns and mortality bills are ransacked in all leading countries in the enlightened world, where such are kept, and a statistical table is forthwith made up and republished to the world after substantially the following form:

In France —	Of	1,000	Married Men,	6	die	annually.
	"	"	Bachelors,	10	"	"
	"	"	Widowers,	21	"	"
In Brussels—	"	"	Married Women,	9	"	"
	"	"	Girls,	9	"	"
	"	"	Widows,	17	"	"
In Belgium—	"	"	Married Men,	7	"	"
	"	"	Bachelors,	9	"	"
	"	"	Widowers,	25	"	"
In Holland—	"	"	Married Men,	8	"	"
	"	"	Bachelors,	12	"	"
	"	"	Widowers,	16	"	"
	"	"	Married Women,	13	"	"
	"	"	Spinsters,	9	"	"
	"	"	Widows,	14	"	"
General deduction from all the tables	"	"	Benedicts,	4	"	"
	"	"	Bachelors,	10	"	"
	"	"	Widowers,	22	"	"

These all purport to cover only the five years from 25 to 30 years of age.

Such a table could only have been made up by a married man, or a bachelor who was already engaged—certainly not by a widower who intended remaining such, with death thus pointing to a new matrimonial alliance as his alternative.

Our profession is, in my opinion, greatly damaged by such exhibitions of mathematics run mad! What are the elements upon which this "calculation of probabilities" is based? And what elements necessary to reliable statistics are entirely ignored because in the nature of the subject they can not be obtained. Were the laws and usages regarding matrimony alike in all countries, were the conduct

of benedicts, bachelors and widowers, as well as of girls, spinsters, wives and widows, of a degree of uniformity as to the influence over it of all the motives of physical, financial, sexual, social, intellectual, impulsive and moral, which govern human actions—we might then hope to arrive by figures at something upon which reliance could be placed; but the variability of the elements vitiates the conclusion.

Look at the different interpretations put by the advocates of different theories, and schemes for the management of the "Social Evil," upon precisely the same numerical tables. One set of interpreters of the tables making out that there are 50,000 prostitutes in the city of London, who should be watched over by an army of surgeons or gynecologists armed with speculums and paid out of the public funds; not so much that these women may be reformed, as that they be made more safe subjects for the embraces of libertines. Another class, infering from the same tables that there are only 7,000, and that even these have a right, like other human beings, to be consulted as to whether they desire any professional interference with their private affairs, and claiming that libertines may be as properly subjected to compulsory examinations as themselves, one of each sex being required to consummate the "Social Evil."

> "Nought is so vile that on the earth doth live,
> But to the earth some special good doth give;
> Nor aught so good, but strained from that fair use,
> Revolts from true birth, stumbling on abuse."

Thus writes an old poet, and to a like effect writes the most profound of modern philosophers. "There is a soul of goodness in things evil." "A germ of truth in things erroneous." "There must be an element of truth in every error, or its belief could not have been entertained by a rational being." "Error is the perversion of some truth—wrong, the infringement of some right. The most distorted or unnatural image ever presented to the human mind, was a more or less true representation of some reality." Our profession furnishes abundant examples of the truth of these propositions. Let us select at random a few illustrations among those who were both honest and intelligent.

Roger Bacon gave us a wise estimation of the four great impediments to knowledge: 1st. "Too great dependence on authority. 2d. Allowing too great weight to custom. 3d. The fear of offending the vulgar. 4th. The affectation of concealing by the display of a specious appearance of knowledge."

He also, with apparently equal sincerity, lays down the silly, alchymico-medical speculation, "That medicine which

taketh away all the impurities and corruptions of the baser metal so as to make it into purest silver and gold, and is thought by wise men to remove the corruptions of the human body so as to prolong life for many ages, is the philosophers' stone which is the basis of the elixir of life; that when discovered and properly used, will restore perpetual youth, beauty and vigor to such as lack either or all; and will finally restore the dead to life, light, joy and immortality."

No one is weak-minded enough at the present day to believe the story he tells of the "ploughman in Sicily, who found a jar full of yellow water, upon drinking which, his whole nature was changed, so that from a clown he became a courtier, clever and handsome, and lived eighty years in the service of the count."

And who believes his interpretations that "it was potable gold, which does wonders when well prepared and thoroughly drawn out," except it be those, who interpret credulity as belief, and adapt the follies of Hahnemanic potencies, developed by the magic of trituration? Yet we know there are thousands who, though they laugh at the follies of alchemy, risk the lives of their patients upon the inanities of globulism.

Take Broussais, who says, in the beginning of his "History of Chronic Inflammation," "medicine is enriched only by facts." "I hold it a principle always to suspect the experience of a man whose mind is preoccupied by a theory."

In the same work, when criticising the theory that inflammation of the digestive mucous membrane had much to do with the causation of ataxic fever, which had been put forth by Prost a few years before, he remarks: "I have too often found this membrane in good condition after the most malignant typhus; I have seen too many patients improved by the employment of the most energetic stimulants, to share the opinion of this physician on the cause of ataxic fever." Yet this same learned Broussais put forth the doctrine, that not only was a "gastro enterite" the cause of ataxic fever, but of every form of fever; and not only so, but that it existed in, and should influence the treatment of every form of disease to which the human body is liable.

Thus do the most highly gifted often become blinded to their own well grounded and clearly stated axioms of practical wisdom. Such is the blinding influence of a pet dogma!

Sydenham, in relation to the subject of "indications of cure," says: "I am fully persuaded that nothing tends more to the formation of a true judgment than an accurate ob-

servation of the natural symptoms of diseases, and the medicines and regimen which appear from practice to be beneficial or detrimental. From a careful comparison of all these things, the nature of the distemper appears, and the curative indications are much better and more certainly learned than by endeavoring to find out the nature of any determinate, concrete principle of the body to direct myself by. For the most curious disquisitions of this kind are only superficial reasonings, artfully deduced, and clothed in a beautiful dress, which, like all other things that have their foundation in the fancy, and not in the nature of things, will be forgotten in time; whereas those axioms that are drawn from real facts will last as long as nature itself. For a physician to set out with hypothesis is as absurd as for an architect to attempt to cover a house before he has laid the foundation, which only those who build air castles have the privilege to begin at which end they please."

Yet the great Sydenham discovered of "Peccant humors" "Coctions," "Commotions," and "Effervesences" which we now believe for the most part to have been mere creatives of a void imagination. Thus is the reason warped by theory.

But we come to those hasty generalizers who think to explain everything by the magic of one idea, which appears to have been adopted by them *a priori*, and so to have vitiated their natural powers of perception, that like the critic Dennis, "They can hear no thunder but their own." The ruling idea with such reasoners, becomes a refractory medium which bends the rays of the light of truth all in a particular direction, and their mental eyes are only turned in that "particular direction," consequently light from any other source, or through any other medium, howsoever clear and bright it may be, is to them but darkness. They make of themselves perfect illustrations of the truth, that there are those in philosophy as in morals, "who, though they have eyes, see not, and thongh they have ears, hear not the truth as it is." Take one or two notable examples of the multitudes that offer, among "one idea" medical speculations.

If the rays of medical truth are distorted by the Preusnitzian doctrine, the human body will be regarded as essentially a skin bearing upon its surface the openings of seven or eight millions of pores, and in its substance twenty-eight or thirty miles of perspiratory tube! This skin to be sure envelopes organs of some consequence in the "make up" of the individual; but they are so completely subservient to the more important function of this enormous skin, that

they one and all dwindle into comparative insignificance in the estimation.

Though the lungs, kidneys, liver and bowels free the system of more than twelve times as much useless and injurious matter as the skin, it goes for nothing in the estimation of these votaries of hydropathy! The fact that a boy who was varnished and gilded, that he might appear in procession as a typical representation of the golden age, in one of the *fetes* of Louis XIV, died from the effects of closure of the pores of the skin, causes enthusiasts of this stamp to forget the numerous cases of daily occurrence, in which death follows the obstruction of any of the organs above mentioned, and that too, where the skin is unobstructed and can bring all its millions of pores and miles of tube to the rescue, and yet without avail! Again, if the Hahnemanic speculation distort the mental vision, it sees in symptomatology only the toxic resemblances of the appropriate remedies.

In pathology, little besides the near or distant workings of scabies, sycosis or syphilis, and in therapeutics a fancied control of the most formidable of symptoms, by the exhibition of almost infinitessimal doses of the very poison which, when given in large doses to a healthy subject, will produce symptoms most nearly like the ones to be treated.

"Thus seeking toxic signatures,
It quacks of universal cures."

But this folly of Hahnemanism maintains too great an influence over the popular as well as the quasi-professional mind to allow it to be dismissed with a mere passing allusion. Let us get the definition of this "rival medical system," as given by authority. Noah Webster says:

"Homœpathy is the art of curing, founded on resemblances; the theory that disease is cured by remedies which produce on a healthy person effects similar to the symptoms of the complaint under which the patient suffers, the remedies being usually administered in minute doses. The system was founded by Hahneman, and is opposed to allopathy." Dr. Mayne, in his medical lexicon, gives the following: "Homœpathy—(*omoioz, pathos*)—The name given to a doctrine propounded by Hahnemann, which professes to reject the study of causes, and consists in increasing the progress of disease or, as he terms it, the operation of the vital force or strength by artificial means, by an analagous, artificial disease as nearly as possible resembling the original one. The therapeutic branch of this doctrine consists in an infinite divisibility of medicinal doses, even to the millionth part of a grain, the billionth or trillionth of a drop

use of it by those who are a little older. The opinion of science is exactly the opposite of the popular opinion on this question. Each day the body of a man undergoes a certain wear and tear—wear through muscular exertion, wear of the nervous system, wear of viscera in carrying on the functions of life, and this waste has to be renewed. Every day, by radiation his body loses heat, and as the temperature must be maintained, this loss must be compensated by the constant production of heat. The man has simply to maintain his equilibrium. The boy also wastes his tissues by action; he loses heat by radiation, and as his body exposes a greater surface in proportion to its mass than does that of an adult, and loses heat faster, he requires proportionally more calorific food than a grown person. Even if the boy had no more vital processes to carry on than the man, he needs, in proportion to his size, more nutriment. But, in addition, the boy has to grow, or in other words, make new tissue. After providing for all the other needs, the surplus nutriment is wanted to build up the frame, and only by this surplus is normal growth possible. Any growth taking place in the absence of such surplus, causes a manifest prostration, consequent upon deficient repair.

Admitting, as we must, this relatively greater need for nutriment, the question is, how shall we meet it, by giving a large quantity of light food, or a smaller amount of concentrated food? Shall we meet the needs of the child by giving a sufficient quantity of food as good as that of adults, or tax the stomach with a larger quantity of inferior nutriment? The more we save from the labor of digestion, the more energy we leave for purposes of growth and action. The function of nutrition cannot proceed without a large supply of blood and nervous power, and the more nutritious and the better adapted the food is for assimilation, the less extra energy will be taken away from the general fund. Not only the size but the energy of a child depend in great measure on its food, and as that is stronger and more nourishing, so will he be more capable of exertion and endurance. The well known fact of the superior powers of the

a healthy person in sufficient doses, will produce conditions or symptoms, similar to those of the disease to be cured.")

Now substances, which by their use cause symptoms of disease, are *poisons*. If the homœopathic theory be the true one, then the only branch of medical investigation worthy of being pursued is toxicology, because according to the theory, the only way to arrive at the curative qualities of a drug, is to poison some healthy person with it and record the symptoms.

Listen to what Ruddock says on the "Pathogenesis of Camphor;" also "Its uses in the Cure of Diseases;" also his definition of cholera and see if we trace adherence to homœopathic law. "In doses of from two to ten grains, camphor acts as a stimulant: it increases the action of the heart and arteries, exhilerates the spirits, excites warmth of the body and diaphoresis, the pulse is rendered softer and fuller. These effects are transitory, and are followed by depression. In somewhat larger doses, it allays spasm and pain, and produces sleep. In poisonous doses, it produces vomiting, vertigo, delirium, and convulsions. It acts chiefly on the nervous system, and like sulphur, it transudes through the skin, and is exhaled by the lungs. It exercises a powerful influence on the genito-urinary system; occasionally it causes strangury, yet by some it has been advised to relieve stranguery produced by cantharides." "General uses," choleraic diarrhœa, sudden and extreme prostration of the nervous system with severe chills, chattering of the teeth, pallor of the countenance, sense of internal heat, cold sweats, cramps, purging, etc."

Definition of Cholera.—"Cholera is usually ushered in by premonitory diarrhœa, and accompanied by sudden prostration, tremor, dizziness, spasm of the bowels, faintness, profuse serous or bloody alvine discharges, vomiting, burning heat at the stomach, and dampness of the whole surface of the body, cold tongue and breath, unquenchable thirst, feeble, rapid pulse, extreme restlessness, oppressed breathing, suppressed urine, blueness of the body, sunken and appalling countenance, peculiar odor from the body, collapse, and finally, unless reaction comes on, death."

Now let us see the dose and mode of administration of this remedy for cholera: "A saturated tincture, consisting of camphor and alcohol in equal parts, is to be given in four drop doses, every five minutes; or, in very severe cases, as high as twenty drops every five minutes, till reaction sets in, which will be in two, three, or four hours."

Such Homœopathy and such globulism as this need no comment! Take all the vaunted Homœopathic remedies,

has witnessed the terrible remorse of a father, who is firmly convinced that he was himself the cause of the early death of his only son. Those who survive carry the marks of their suffering either in growth or constitution. When the constitution is sound enough to stand it, exposure produces hardness, but at the expense of growth. The Shetland pony is tough but a dwarf, and the Laplander and Esquimaux are stunted. This is most easily explained. As we stated before, in order to compensate for the cooling by radiation which the body is ever undergoing, there is an oxidation of certain matters forming part of the food. In proportion as the loss of heat is great, must the quantity of these matters for oxidation be increased. All the energies being drawn upon to maintain the bodily temperature, less material is left to build up the frame. This shows the true importance of clothing. Liebig says: "Our clothing is, in reference to the temperature of the body, merely an equivalent for a certain amount of food." By lessening the loss of heat, it lessens the amount of fuel needed to keep up that heat; and the stomach can do more in preparing other materials. Here again the farmers have found out that cattle are fattened on less food in a warm stall, than if the temperature is low, and govern themselves accordingly. In proportion to their smallness and the rapidity of their growth, do children suffer the greatest injury from cold. Quetelet has pointed out, "that in Belgium two infants die in January for one that dies in July." We have before stated that the child exposes more surface in proportion to its bulk than the man, and loses relatively more heat. Lehman says: "If the carbonic acid excreted by young children or animals is calculated for an equal bodily weight, it results that children produce nearly twice as much acid as adults." This is a fair indication of the amount of heat produced. And we see that in children the system has naturally to provide nearly double the proportion for generating heat. *Every ounce* of nourishment needlessly wasted to keep up the temperature, is stolen from the nourishment of the frame, and the child, with lowered vitality, is peculiarly liable to attacks of disease and has not the power to rally

from them. Dr. Combe gives us the true principle in the following words: "The rule is, therefore, not to dress in an invariable way in all cases, but to put on clothing in kind and quantity *sufficient, in the individual case, to protect the body effectually from an abiding sensation of cold, however slight.*" Fashion, which dresses children to please the eye, and changes the ordinary woolen dress for a white one to go out visiting has, with the aid of the bleak winds of our coast, sent many a little one to Heaven; and, perhaps in its eventualities, the fact that many more have survived, with impaired vigor and weakened forces, mental as well as bodily, to transmit in their turn these failings to their children, is still more sad to contemplate. The clothing of children should never be in such excess as to prove oppressive, but it should always be enough to prevent any general feeling of cold; it should be a good non-conductor, as woolen, strong enough to stand hard play, and its colors such as will not suffer from use and exposure.

Most persons are aware of the importance of bodily exercise for children, yet still they are not generally allowed full scope for the exercise of their energies in this direction. Especially in our cities children are kept at home; it is not genteel to play in the streets; and then they will soil their clothes! While boys manage to get a tolerable amount of exercise, our girls are fettered on every side. Girls must not be allowed to run wild; they will be as rude as boys, and grow up romps, say the defenders of maiden propriety. This fear is needless; the sportive activity of boys does not keep them from growing up into gentlemen. Why should it prevent girls from becoming ladies? Youths often show a ludicrous anxiety to avoid whatever is not manly. It is notorious that English girls are less forward, remain children longer than ours do, and they are certainly modest and reserved enough when they grow up; yet they habitually take an amount of exercise such as our girls never dream of, and are allowed to follow their natural inclinations for juvenile sports. The robust form of the young English lady who walks ten miles for pleasure, and does not suffer from exposure to the inclemency of the weather, is a commentary on the wisdom of their early training.

Gymnastics have been brought in to supplement that natural play which all children seek if allowed to. That this is better than nothing, we admit; but that it is an adequate substitute for play, we deny. These formal muscular actions are less varied than those accompanying juvenile sports, do not secure so equal a distribution of action to all parts of the body; this produces fatigue sooner, and leads to disproportionate development. Gymnastics are inferior in the *quantity* and also in the *quality* of muscular exertion which they secure. They are monotonous, while sports produce exhilaration which has a highly invigorating influence. Happiness is the most powerful of tonics; it tends alike to increase health when it exists, and to restore it when it has been lost.

A topic remains, perhaps demanding more consideration than any of the foregoing. Are the younger adults, and those verging upon maturity, among the educated classes, as strong and as well grown as their seniors? As measured by ancient armor, modern men are proved to be larger than ancient men. The tables of mortality show rather an increase in the duration of life; and yet omitting the laboring classes, it will be found that in a majority of cases children do not reach the stature of their parents; and in massiveness, making due allowance for difference of age, there is the same inferiority. In health the contrast is even greater. Men of past generations, living riotously, could bear more than men of the present generation who live soberly. The annals of the bench and bar show that our recent ancestors were capable of prolonged application without injury, even to very old age. Yet paying more attention to the laws of health, we are continually breaking down under our work. What does this mean? Is it that the past overfeeding, of adults and juveniles, was less injurious than the underfeeding we have spoken of? Is deficient clothing to blame? Is discouragement of juvenile sports, in deference to a false refinement, the cause? Each of these probably has had a share in producing the evil; but another detrimental influence is at work, perhaps more potent than any of the others, except mental application.

The pressure of modern life continually increases the strain on old and young. In all professions and business pursuits, intense competition taxes the abilities and energies of every grown person. In order to fit the young to maintain their place under the competition, they are subjected to more severe discipline than before. Fathers hard pressed by competitors, have to keep up a more expensive style of living; and always at work, get little exercise, and few holidays. Their constitutions broken by over application, they transmit to their children, and these comparatively feeble children, predisposed to break down, are required to go over a more extended course of study than their stronger predecessors. The disastrous effects of this cumulative transgression can be foretold, and every one sees the results. Cases of children or youths of either sex, more or less injured by undue study, frequently come under our notice. Here a child has to leave school; again, you find chronic congestion of the brain. One has a fever, or another is subject to fainting fits. These troubles become hereditary, and the children of parents who have been effected by such complaints, inherit an enfeebled brain, and are frequently unable to bear even a moderate amount of study without headache or vertigo. Indigestion, constipation, cold extremities, palpitation, impaired vision, checked growth and lax tissue, are only a few of the evils entailed. If sufferings so conspicuous are frequent, how general must be lesser injuries. For one case where well marked injuries are traceable to overwork, there are many cases where the evil is unobtrusive and slowly accumulating, cases of derangement of function attributed to anything but the right cause, cases of retardation and arrest of bodily growth, where a tendency to consumption is induced; most common of all perhaps the predisposition to cerebral disease, which strikes down so many among our overworked upper classes.

When we see the frequent ailments of overworked professional and mercantile men, and how constitutions are undermined by these causes, think upon the sad effects which undue application must produce upon the unde-

veloped systems of children and young persons. The young are not competent to bear as much hardship or physical exertion, nor as much mental exertion as grown persons. If the full grown suffer so manifestly from the mental exertion required of them, what must be the damage which a mental exertion, often equally excessive, inflicts upon the young? Does not every professional man know how common slight curvature of the spine is among girls, and that this is frequently due to debility? Most parents seem to know the bad effects that follow infant precocity, yet it appears not to be perceived that throughout the whole time of growth a forced developing of intelligence will entail evil results. There is a natural order and a natural rate at which the faculties unfold. If these faculties are overtaxed, the result will be some form of evil. Let it never be forgotten how many demands there are upon the system of the child, repair of muscular tissue, repair of brain and nervous tissue, supply of heat, performance of digestion, growth; we can over stimulate the brain only at the expense of all the other functions, for the amount of vital energy which the body possesses is limited, it is impossible to get more than a certain amount of power. Says a distinguished writer, "It is a physiological law, first pointed out by M. Isidore St. Hiliare, and to which attention has been drawn by Mr. Lewes in his essay on *Dwarfs* and *Giants*, that there is an antagonism between *growth* and *development*. By growth, as used in this antithetical sense, is to be understood *increase of size;* by development, *increase of structure*, and the law is that great activity in either of these processes, involves retardation or arrest of the other." "Now this law is true, not only of the organism as a whole, but of each separate part. The abnormally rapid advance of any part in respect of structure involves premature arrest of its growth; and this happens with the organ of the mind as certainly as with any other organ. The brain, which during early years, is relatively larger in mass but imperfect in structure will, if required to perform its functions with undue activity, undergo a structural advance greater than is appropriate to the age; but the ultimate effect will be a

falling short of the size and power that would else have been attained." "And this is a part cause—probably the chief cause—why precocious children, and youths who, up to a certain time, were carrying all before them, so often stop short and disappoint the high hopes of their parents." Prolonged exertion of the brain then, and undue mental excitement in children and youths, will surely entail accumulating degeneracy of physique. The effects must be bad when a weakened stomach supplies the growing body with blood deficient in quantity and poor in quality, while a weakened heart fails to propel this vitiated current at the normal rate. This system is a mistake, no matter how you regard it. If the mind is plied with facts faster than they can be grasped, they fall out of recollection. It makes study distasteful, and causes an aversion to all books and information in after life, thus defeating its own end.

Acquisition of knowledge is not everything; it is the organization of knowledge we want. Spencer remarks, "It is not the knowledge stored up as intellectual fat which is of value; but that which is turned into intellectual muscle." But its worst feature is that it destroys that physical vigor necessary to make intellectual training useful in the competition of life. Success depends more on energy than upon information by itself. Strong will and that untiring activity which comes from abundant animal vigor, will gain a victory over competitors enfeebled by over study. Even supposing worldly success attained, the ill health accompanying this system will be a perpetual curse.

On women this system produces even worse results than on men. Men care little for learned women, but they do care for physical beauty, sense and good spirits. Rosy cheeks, laughing eyes, and a fine figure, with gentleness, and good breeding, will carry the day over all the refinements of school lore. As Mr. Zulliver says, "An over cute woman is no better nor a long tailed sheep. She'll fetch none the bigger price for that." Wisely and well it is so ordered, let us remember that nature's chief end is the welfare of posterity, and so far as that is concerned, mere culture accompanied by a bad physique, is worthless, the

descendants of such parents will die out in one or two generations. A good physique is worth preserving, even with poor mental endowments, for throughout future generations, the mind may be developed. The system which would overload a girl's memory at the expense of her constitution, is fatal. Educate by all means, and as highly as is compatible with the general health and function of growth were the cramming system less pursued, and the system of self education and reasoning more developed, a high grade of cultnre might be reached. The pupil would have sufficient interest in her studies to prosecute them when the restraints of tuition are removed, there would be something to fill the blank between the school room and married life. But so to educate as to produce physical degeneracy, is to defeat the very end for which all this toil, expense and solicitude are undergone. This high pressure system applied to girls, often ruins their prospects for life, besides inflicting on them bad health, with its pains and disabilities, and consequent exacerbation of temper, it very often actually consigns them to celibacy.

Dr. Nathan Allen of Lowell, brings one part of this subject very forcibly before us. He has studied the subject statistically, and has discovered that the average number of children to American families in New England is but 3 or 3½, against an average of 8 to families of a corresponding social scale a century ago. Population can hardly be kept up among the educated classes, unless an average of more than three children are born to a family. This, then, is the great problem of the future. Historians long debated the question, what was the reason for the decline of Greece and Rome. Prof. Seelye, the eloquent author of "Ecce Homo," has answered this question: "Rome died for want of men." The human harvest was bad. Dr. Allen has shown that, in all probability, Greece died from the same cause as Rome. Practitioners in New York and its vicinity state the same facts. The editor of the *N. Y. Medical Record*, very truly says: "A nation can do without high culture; it can do without extensive territory; it can do for a time without religion; it can, like China, do without a

pure morality, *but human beings it must have.* Questions of science, of education, of government, of religion, of morality, etc., are trifles compared with this one great question of population. The time must come when physicians will evince a disposition to employ a portion of their leisure in studying the great laws of population."

The general conclusions to be derived from what we have stated are, that the ordinary treatment of children is often injudicious. Their food is deficient in quantity or quality, or both; they are not properly clothed; they do not have sufficient exercise, more particularly the girls, and the mind is overworked at the expense of the body. We tax the young organism too much, and give it too little. Through infancy, childhood and youth, growth is the requirement to which everything else should be subordinate. The mental and physical activities should be increased gradually only as the rate of growth diminishes. Herbert Spencer, to whose writings we are greatly indebted, remarks: "We do not yet sufficiently realize the truth that as, in this life of ours, the physical underlies the mental, the mental must not be developed at the expense of the physical." All neglect of the laws which conserve or promote health is *physical sin.* When the preservation of health is looked upon as one of our most important *duties to ourselves and others,* the physical training of the young will be understood better, and will receive that attention which it imperatively demands.

Ophthalmology and Otology.

ART. VII.—*Souvenirs of the Ophthalmological Congress of London.* By DR. WARLOMONT. FOURTH SESSION, 1872.

(Translated from the Annales D'Oculistique of July and August, 1872.)

The fourth session of the Periodical International Congress of Ophthalmology was held at London the first, second and third days of August.

About ninety members were present. Germany, England, America, Belgium, Spain, Holland, Italy and France were well represented, also Russia. [For the names and residences, we refer our readers to the official *compte rendu* soon to appear.—EDS.]

The congress was opened the first of August, at 11 o'clock A. M., by M. Critchett, president of the temporary committee, who welcomed, in French, the numerous strangers who had responded to the call of the committee. He expressed himself in about the following terms: Last year, at Heidelberg, when in company with a number of ophthalmologists, I took it upon myself to express my wish that the Fourth Session of the Periodical International Congress of Ophthalmology might be held at London in 1872. My proposition was received with great good will, and I, with M. Soelberg Wells, was commissioned to constitute the Committee of Organization.

Your committee *provisoire* has accomplished its duty as well as it has been able. It sees with great joy that its efforts have been crowned with success, since the most illustrious savants of two worlds have made this spot their *rendez-vous*, where I am permitted to address to them, the compliments of welcome in the name of my colleagues, happy to receive them.

This agreeable duty accomplished, it only remains for me to leave this place in order to offer it to the members of the definite *bureau* whom the congress shall judge worthy to be called to it.

I wish only to add a word: it has been impossible for us to please everybody as to the *epoque* of our reunion. Later than this time, it would have brought us to that moment of the year when London is only a vast desert. Earlier, it would have prevented most of those members who are instructors from being present, as the exigencies of their profession keep them at home up to the end of July. We have done our best in selecting the date, and of those who are dissatisfied we beg pardon.

The time of this congress is limited, and it is to be earnestly desired that it should not be diverted by the details of installation of officers; and for this reason, after having ascertained the opinion of most of the members present, and in order not to waste the time so valuable to us, in useless scrutiny, I now propose to call to the Bureau by acclamation:

As President, Mr. Donders.

Vice-Presidents: Messrs. Warlomont (of Brussels) and H. Williams (of Boston).

Secretaries: Messrs. Soelberg Wells (of London) and Zehender (of Rostock).

These names being heartily applauded, the bureau thus constituted: Messrs. Donders, Williams, Warlomont, S. Wells and Zehender, took their places.

Mr. Donders, in assuming the seat of President, made the following address:

"*Gentlemen:* I thank you for the signal honor which you have conferred upon me, and I shall do all in my power to make myself worthy of your confidence. The duty which I shall have to fill I know is above my capabilities, but as it is your will which imposes it upon me, your kind indulgence will facilitate its accomplishment. Permit me to draw largely upon it.

"*Gentlemen and dear Colleagues:* It is, indeed, a solemn moment, when men of the *elite* of science assemble, having traveled from all parts of the civilized world, inspired by the same sentiments of confraternity and guided by the same aspirations. It is to them, and in the name of his compatriots, that our honored *confrère* and friend, Mr. Critchett, has just addressed a welcome to the hospitable soil of England. Your hearts answer the hearts of our *confrères*, your spirit strives to enlarge its acquaintances, and you are also ready to give as you are avaricious to receive, with no other end or ambition than the interests of humanity. Now this aim is noble and grand. The branch which is the object of our labors is beautiful, either classed among the sciences or the arts, for in no part of medicine do we find both so intimately united, as in that of ophthalmology. In that lies the secret of its relative perfection, of its incontestable superiority. The celebrated Helmholtz has consecrated this truth, when he said that modern ophthalmology is, in comparison to other branches of medical science, that which, only lately, astronomy was to the physical sciences—the model to which they all must conform.

"Let us be proud of it, gentlemen, in offering the tribute of our gratitude, as much to the illustrious savant who has given us, in the ophthalmoscope, the instrument of progress, as to the immortal Master, the genius of whom has spread over the whole expanse of our dominion His regenerative breath, let us not forget that nobility binds to noble conduct. 'Tis ours, gentlemen, to give to ophthalmology the seal of exactitude, in which lies its glory. I should further insist on this point, if I were not already convinced that in discarding all observation of a superficial character, all research lacking method, all vague and gratui-

tous assertions, this congress will prove that we are all duly impressed with our duty.

"Gentlemen, the object of this congress of which I will at this moment open the session, will have been accomplished if, at our separation, we can determine that our branch has made some essential progress, that the boundaries of our knowledge is enlarged, and that we again feel the need of cordially pressing each other's hands, carrying away with us the conviction of having contributed to the welfare of humanity. May we be able to attain this end and thus finish our efforts."

After this discourse, which was warmly applauded, the President proclaimed as honorary Vice-Presidents, Messrs. Critchett and White Cooper (of London), Cervera (of Madrid), Quaglino (of Milan), Hesse (of Mayence), and regretted not being able to tend the same honor to Mr. Bowman (of London), who has thought best to refuse it, and Mr. Giraud Teulon (of Paris), who was unable to be present at the congress. The meeting was then open to "Scientific Communications."

It does not behoove us to enumerate and much less to make a full statement of them here. Besides, not possessing the materials requisite to accomplish the work, it is not our place to encroach upon the rights of the official report, which will be ultimately published, and will give *in extenso* all the communications, which were introduced, to the number of about thirty. Also the discussions to which a number of them gave rise. We hope, nevertheless, to remain within bounds and at the same time please our readers, while taking a rapid glance at the proceedings which have just taken place at the congress in London; as well within the majestic precincts in which have been held our "*seances*," and which the Royal College of Physicians was so kind as to place at our disposal, as outside of it.

The meetings took place on Thursday, Friday and Saturday, the 1st, 2d and 3d of August—in the morning, from 11 to 1 o'clock; in the afternoon, from 3 to 6. Before and after the meetings, as well as during the intervals, the members of the congress scattered themselves among the various hospitals of London, to assist at operations.

The meetings were nearly altogether devoted to verbal or written communications, which occupied nearly its whole time to the detriment of discussions, which were, we are sorry to say, often much curtailed or prematurely closed.

Four papers were read on Cataract, by Messrs. Bribosia (of Namur), Wolfe (of Glasgow), Taylor (of Nottingham), and Warlomont (of Brussels). Mr. Bribosia having occasion

to operate upon a pusilanimous and refractory individual by anæsthesia, and fearing that the critical period of iridectomy, in Græfe's operation, which he wished to make, would be impossible of execution, employed the following maneuver, which he proposed to institute as a method: The linear knife having made its puncture and counter puncture, is rotated slightly on its axis in order to allow of the escape of the aqueous humor; the iris will then present in front of the blade, which will excise it while the corneal incisions is being completed. The capsule should be previously opened. Mr. Taylor, in his operation, makes the iridectomy at the upper edge of the iris, without molesting the sphincter, and causes the cataract to pass behind the iris. The pupil remains intact.

The paper of M. Wolfe treated of traumatic cataract.

That of M. Warlomont exposes a new proceeding for the extraction of cataract, called extraction by the small median flap, invented by M. Lebrun, and which originated in the ophthalmic institution of Brabant. It consists in extracting the cataract through a wound, with a flap but slightly elevated, of a special form, made in the middle of the upper segment of the cornea without *necessary recourse to iridectomy*. The eye having been fixed by the forceps, Græfe's knife is introduced into the cornea, one or two millimetres below the external extremity of its tranverse diameter, the cutting edge turned upward and slightly forward, so as to form an angle of 30° between the plane of the knife and that of the iris. Penetrating the anterior chamber it is rapidly passed across it in order to make its counter puncture at a corresponding point on the other side of the cornea. The incision is then continued by moving the knife so that its edge insensibly describes a curve, completing the incision in the cornea at the junction of its superior with its middle third. Nothing then remains to be done but to open the capsule and give exit to the cataract by the usual means. This incision is not a plane; neither is it parallel with the iris, like those practiced in the other operations for extraction; it is a curved surface, which may be represented by the intersection of a cylinder (the curved track of the knife,) with a segment of a sphere (the cornea).

The segment has a height of three to four millimetres, but its extent is greater, taking into consideration the curvature of its surface. The lateral portion is cut obliquely in the cornea, its summit only is perpendicular, and is situated a little below the superior border of the pupil, at its medium degree of dilitation.

This section offers the following advantages:

1st. It is easy of execution, and does not allow the escape of the vitreous body before the maneuver of expulsion.

2d. Its situation, with respect to the pupillary opening, permits the crystalline lens to engage within it without any obstacle, and without having, as in the extracting by the large flap, to push before it the iris in which it is then enveloped, and from which it is only disengaged by bruising more or less violently the posterior surface and pupillary margin.

3d. The opening in the cornea appropriates its gaping sides to the curved surfaces of the lens, which corresponds to the minimum of extension of the opening.

4th. The lips of the wound naturally reapply themselves, and the eversion of the flap is impossible.

5th. The iris, unless by accident, has no tendency to prolapsion. It does not present itself under the knife during the incision, unless the knife is wrongly directed; if the movement which is to cause the cutting edge to advance in order to terminate the incision, is attempted too soon, the premature escape of the aqueous may give place to this accident, which, at any rate, has only a relative importance. One should continue, and if as ordinarily happens, it should result that the iris is divided and is found engaged in the wound, one should practice iridectomy. In the proper course of the operation, the iris should be entirely uninterfered with.

6th. The healing process is, in general, very rapid, and leaves no trace other than a simple curved line, which, after a few months, has almost ceased to be visible, and besides is found situated outside of the field of the pupil.

This operation, practiced for several years at the Ophthalmic Institute of Brussels, is described in volume XIII, first part of the *Dictionnaire Encyclopedique des Sciences Medicales.* (Art. Cataract, Warlomont, Paris, G. Masson, 1872.) M. Critchett saw the author practice it in September, 1871, since which he has frequently performed it himself, with great success, in London. He was therefore able to speak to the congress of his acquaintance with the operation, and he did not hesitate to place it, in regard to security of execution, at least by the side of Græfe's extraction. Mr. Critchett disclosed on this subject practical ideas, both interesting and original. In Græfe's operation, said he, it is from the iris and uveal tract that the immense majority of consecutive accidents arise. In proceedings by the flap, on the contrary, besides the prolapse of the iris, which, in the

Book Reviews.

Report of the Health Officer of the City and County of San Francisco for the Year Ending June 30, 1872.

We have received this report and perused it with satisfaction. In the first place, it gives the remarkably small number of 2,998 deaths in a city having a population of 178,276 people. This the Health Officer concludes "to be the best showing that can truthfully be made for any city in the United States, if not of the entire world," and it would seem as if we only required a decent system of sewerage to make this the healthiest city of which we have knowledge. After speaking of the classes of diseases and the nationality of the decedents, the Health Officer refers to public nuisances, and strongly recommends that public urinals be constructed. In this we heartily concur; but cannot join with him so strongly in the suggestion, that earth closets will remove the privy nuisance. Earth closets are invaluable, but to be so, they must be properly cared for, and this we do not think can be done by everyone or in every section of our city. The great requisite of *dryness* is of the first importance and would be the first neglected, the great advantage of the closet would then be lost and a nuisance of more potency than the privy introduced. That something must be done, is clear, and we wish that we could see the remedy as clearly as does our efficient Health Officer. It is to be regretted that the revenue of the office is allowed to be so small and not increased by law, that the department might be more nearly self-sustaining. The report is filled with statistics and tables of great value, and it reflects credit upon its author.

THE

WESTERN LANCET:

A JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

FOR DECEMBER, 1872.

Surgery.

ART. I.—*Fracture of the Femur through the Trochanter Major and Neck.* By W. S. THORNE, M. D., San Jose, Cal.

August 11th, Mr. M., a railroad conductor, *æt* 30, was injured by being thrown from a vehicle while in rapid motion. The patient stated that his body was in a horizontal position on reaching the ground, and that his weight (180 pounds), added to that of his companion, was received upon the hip bone (trochanter major). On examination, fifteen minutes after the accident, the condition of the limb was as follows: Complete loss of voluntary motion or control. In the upright position the foot slightly everted, but no apparent shortening of the limb. In the horizontal position, no apparent shortening. No pain was experienced on moving the limb in the antero-posterior plane, but could not endure any lateral movement; could bear considerable pressure downwards when the thigh was brought to a right angle with the body; could tolerate the same when applied to the foot, the limb being extended. No crepitus could be detected. He could not permit the slightest manipulation of the trochanter major or vicinity. I did not discover any difference in the radii described by the trochanters of either side. Sharp fever and considerable swelling of the upper thigh supervened, which were controlled by sulph. magnes., verat. virid. and opium, the latter by evaporating lotions, the limb meanwhile being supported upon pillows.

My diagnosis having been fracture through the trochanter major and base of the neck, with slight impaction, I determined to apply the long splint of Miller so soon as pain and swelling subsided, which I did on the morning of the third day. The patient informed me at this time that, in an involuntary movement, he had distinctly "felt the ends of the bones grating together," and as he had already suffered from a previous fracture of the leg, and was very intelligent, I did not doubt the accuracy of his statement. August 25th. Swelling entirely gone—textures about the joint soft and attenuated. Trochanter major is much longer and larger than on the sound side. Has often insisted he felt the "ends of the bones grating on each other;" has had considerable pain, confined to the inner side of the thigh, about three inches below Poupart's ligament; tenderness has been excessive around the trochanter until recently. The limb, I think, is almost half an inch shorter. Sept. 18th. The splint has been frequently removed and the limb bathed and rubbed. The enlargement at the lower portion of the trochanter is now very apparent. The shortening appears to be fully a half inch. Patient's condition is excellent; has constantly had a generous diet, of which he partakes freely. Sept. 29th. Was allowed to get up upon crutches to-day. Nov. 18th. Average measurements show the actual shortening to be one inch barely; the position of the limb perfect; he walks easily and rapidly with a cane.

I believe the foregoing case to have been an example of fracture through the trochanter and base of the neck, with sufficient impaction at first to prevent crepitus and not enough to render shortening apparent by mere inspection. This conclusion was not based on any very clear symptoms certainly, but rather upon the known fact that great violence to this part frequently produces the injury under consideration, and partly from a consideration of the mechanism of the joint in its relation to the forces applied at the time of the accident.

In falls upon the trochanter with the body more or less extended, the femur acts as a lever of the first kind. The short arm (the neck) supports the body (weight), the long arm is the thigh, and the point of contact with the fulcrum being at the trochanter major. The impetus sustained by the short arm is represented by the velocity multiplied by the weight. Now the axis of the neck makes with that of the

shaft, at their point of intersection, an obtuse angle of about 125° (on the side of the superimposed weight, the body horizontal). The entire weight falling in a verticle plane is required to be sustained by the short arm (neck), whose axis stands at a very obtuse angle to the line of the transmitted force. Hence, the point in the short arm requiring the greatest resisting power and receiving the greatest strain, will be found at some point in the axis of the neck, intersected by a plane more or less verticle.

A brief review of the anatomical structure of this part of the femur, will not leave us long in doubt as to the probable locality of the fracture in our case. The mechanical arrangement of the cancelli in the neck, extending as they do in parallel radii from the thick underwall of the neck to the articular head, and likewise from its upperwall crossing transversely the first to the same point, render its adaptation equally perfect to sustain a given force *from below* as well as from above, during that period of life when its integrity remains unimpaired. Where then will a fracture most likely occur in the neck at this time of life? It will be found in the verticle plane which cuts the axis of the neck at its point of intersection with that of the shaft. This point will also be found in the line of the least resistance. It is, I believe, the weakest part of the neck. It is situated immediately above the trochanter minor at the junction of a hollow cylinder with the base of a massive buttress, formed by a series of arches which spring from the interior of the shaft above the lesser trochanter, and converging above form a solid archway, which sustains the upper portion of the neck.

These, I think, may fairly be accepted as a few, at least, of the determining causes of fracture through the great trochanter and neck (extra-capsular). Of the four surgeons whom I invited at various periods of treatment to examine this case, none believed a fracture to have existed, nor were they convinced until the patient was walking upon crutches, the limb one inch short, and a large bony prominence around the trochanter; one did not even believe it then, and endeavored to impress his error upon the credulous mind of my more astute patient.

ART. II.—*Plaster, Its Advantages in Forming Splints. Cases.* By H. A. DUBOIS, M.D., San Rafael.

It is proposed briefly in the following article to describe the plaster bandage *as used by the Germans*, to enumerate some of the advantages its use has over other splints in the treatment of nearly all fractures, and lastly, to narrate cases in which I have used it with more than usual satisfaction.

As the plaster bandage is by no means new, it is but right to state that here is described a method of using it, which, so far as I know, does not seem to be generally understood in California. Its convenience is so great both to patient and attendant, and it seems to me so well adapted to the surgeon in sparsely settled districts, that it is hoped that those to whom its use is already familiar, will pardon if its description is somewhat minute.

Plaster of Paris has long been used in the formation of splints, and with varying degrees of success; but it has not, until the last few years, come into any general use; certain theoretical ideas as to the union of broken bones, and clumsy methods, have probably been the chief cause of its neglect.

Preparation. Three things are necessary in preparing this splint, viz: plaster, a roller, and cotton wool. The first should be a good article of Plaster of Paris, should be passed through a fine sieve, and be *carefully dried* to expel all water. The roller should be of gauze (the muslin sold for wrapping butter answers excellently well); the stuff of which it is composed should be washed, to remove all size, and it should be *cut* into strips and rolled in the following manner: each bandage should be spread on a smooth table, and the dry and warm plaster *well rubbed* into it, and then carefully rolled. A considerable quantity of plaster will, if the material is loose and without size, adhere to it. The most convenient dimensions will be found to be 2½ inches wide by 6 yards long. The ordinary cotton wool answers without other preparation.

The splint is applied in the following manner (supposing

a fracture of the leg with the bones driven through the integuments): the parts being cleansed and the fracture adjusted, the leg is held firmly by the foot, and the thigh is kept well off the bed; a roller is then applied neatly from the foot upwards, the wound being covered by cotton wool, and a thin layer of it placed over the whole leg, with the more prominent points well padded; a plaster roller is then placed in a basin of water for a moment, and then applied *tightly* to the foot and more loosely up the leg—a moment after another one, and so on until the leg is covered by from five to seven layers of bandage. In ten minutes if the plaster has been properly dried, the leg will be immovable. It can be kept extended during this time, by assistants. With a sharp knife an opening is made over the wound, the cotton removed, and the wound exposed. This bandage can be applied wherever the ordinary roller can be used. Though perfectly simple, many little points require attention to secure a neat and well fitting splint. Once well applied, it may remain on until the cure is completed, or may be removed by making a long cut on one side, and can then be reapplied if necessary. It answers for almost every fracture, gives support to dislocations (after reduction), enables one readily to extend the flaps in amputations (where sloughing has taken place), and can often be used in place of the ordinary bandage, to give support and to retain dressings, where it is very difficult to keep the simple roller in place. In fractures of the thigh, some little ingenuity has to be made use of in order to keep the parts properly in place, while the plaster sets. The use of adhesive plaster will frequently give the means of keeping the parts readily extended. In fractures of the ribs I can conceive of no more effectual and comfortable splint than that formed by applying the dry plaster roller around the body, and then wetting it over the fracture, and after it has set removing it, and fitting the plaster shield again to its place by adhesive strips. In ulcers of the legs it will give firm support, and allow of the ulcer being dressed. In the gathered breast, often occurring after confinement, and where support is as necessary as it is difficult to give with the ordinary roller, or

yet with adhesive straps, the plaster bandage if applied dry and moistened over those portions that it is desired shall remain rigid, fulfills well the indications, giving firm and equal support; it is light and, if the shield thus formed is retained by adhesive strips, easily removed. Thus applied, it answers in making compression in cancer of the breast. In making pressure upon arteries for the purpose of causing their obliteration, a firm case can readily be made in a few minutes, which will fix the limb at any desired angle; an opening can be made over the part where pressure is to be applied, and a strong spring with a proper pad at its end, can, by a few turns of the bandage, be fixed in its place. The patient will thus be enabled to move about, and yet the pressure be kept up. The springs are easily so arranged as to give any desired pressure, and may be changed so that one shall do duty in the day time, and another at night. With a little ingenuity, sponge can be compressed by a cord, fixed by mucilage and, after it is dry, shaped as desired, and applied in a tube held in place by the bandage, or the tube itself can be readily formed by applying the moistened bandage around a solid body of the desired form; a few pounds of mercury enclosed in a properly shaped bag can be applied through the opening. Mercury, from its weight and mobility, has always seemed to me peculiarly well adapted to the making of long continued pressure upon arteries, and I see no difficulty in enclosing and fixing it securely to the part, by using the plaster bandages. The above are some only of the uses to which a plaster roller can be put; many others will strike the practitioner, who, when left without the aid of the instrument maker, is forced to resort to expedients to accomplish his object. A few cases are cited that possess some points of interest.

CASE I.—Was called to see A; found the leg had been crushed by the passage of a loaded wagon over it; examination revealed the fact that the tibia had been broken in two places, and the fragments depressed and movable. Extension being made, the parts with some trouble were adjusted; a thick layer of cotton wool, and a plaster bandage were then applied. The whole was accomplished in twenty minutes, and the next day he was moved to San Francisco with, as I was informed, little inconvenience.

Case II.—B., late at night, drove to my office, and called me out to his buggy. He was found bleeding profusely, the blood coming out of the top of his boot. Placing him on a bed, I learned that in driving down a hill, the buggy had been capsized into a ditch, and that he had fallen under it, and had felt his leg give way. The diagnosis was compound fracture of one or both bones of the leg. On removing the boot, the upper fragment of the tibia was found driven through the skin a distance of two inches, and the fibula seemed to be broken some two inches lower down. Powerful extension was at once made, and a small vertical incision, and with some trouble the upper fragment was withdrawn within the wound. On examination, a large wedge-shaped piece of bone was found held by the periosteum and several smaller pieces were loose. Keeping up the extension, the wound was well washed out with the carbolic acid wash, a weak solution of persulphate of iron applied on a compress, and that covered with cotton wool; over all, the plaster bandage. After this had become firm, and an opening made over the wound, the cotton wool was removed and replaced by a nicely fitting cushion of wool, covered with thin pieces of oil silk. Thus was formed a trap that allowed the parts to be readily examined or cleansed, and yet prevented pus, etc., from collecting and running down inside of the bandage. Carbolic acid one part, to oil four parts, was then applied on cotton wool, and a bandage over all. The leg thus dressed, was placed between bran pillows. In ten days, if memory serves aright, the patient was allowed to go to his home some ten miles off, and I saw him afterwards but once a week, removing at times several pieces of bone. The larger piece already mentioned, became firmly united, union took place, quite a prominence being left, it being impossible to bring the upper fragment on the same plane as the lower one. For several months pieces of dead bone had to be removed by incision, and several fistulæ formed, which were laid opened freely, all loose bone removed, and the openings in the bone well rasped out. Since then, he has had no further trouble. The plaster bandage was renewed once or twice in the course of the case, owing to several attacks of erysipelas which he had, and the consequent swelling of the leg. Within one month from the date of the injury, he was able to go on crutches, and could bear considerable weight on the leg.

Case III.—Very recently I was called some distance to see C., who had fallen from his horse—found his leg tied up with pieces of shingle, giving it support at the sides. There was a compound fracture of the leg, the upper frag-

ment being driven through the skin, making a wound an inch and a half in length and in form almost a half circle. With a sheet bandages were made, plaster was at hand, and in a few moments after reduction, which, as in the former case, could only be effected by a small vertical incision—the leg was well secured in an immovable dressing. It was put, for convenience, in a light fracture box, which was hung on a rail across the room, having a tent block to allow him to fix the box at any height. He is able to get out of bed and to sit in a chair, his leg all the time being kept well supported. A few silver wire sutures were taken in the wound and a dressing of carbolic acid and oil applied. He has had hardly any pain, and promises to recover without erysipelas. Having been in the habit of using alcohol, he is allowed one drink in the morning and one at night; and he takes half drachm doses of the bromide of potassium several times during the day. It is thought that within three weeks from the time of his accident he will be able to walk, with the aid of a plaster bandage and a cane.

In a case already published in the LANCET, of an extensive wound of the elbow and forearm, great assistance was obtained from a plaster shield.

In quite a number of cases of sprains I have used the plaster with satisfaction; also, after reducing several cases of dislocation, it has given firm support for a few days, and has thus aided much in the patient's obtaining a quicker and fuller use of the part than he otherwise could have done.

If, in these few sentences, the attention of those living some distance from the instrument-maker has been called to the manifold uses of plaster, or the recollection of others who have not brought it into daily use in their practice been revived, it is hoped that those to whom it and its uses are an old story will forgive the space taken in advocating a most useful appliance.

NOTE.—As medical men have of necessity much to do with animals, I would mention, that no splint is so well adapted to their needs. Most persons know how difficult it is to keep any kind of a splint on the thigh of a dog. I have several times effected a good union of bone in dogs, and have found the splint to stay well in place, and to allow the animal to run about. I believe, if well applied, with perhaps a splint or two of gutta percha or wood, to give support for a time until the plaster became firm, it would enable valuable horses with broken limbs to be cured.

ART. III.—*Luxation of the Atlas from the Axis and Occipital bone, with rupture of the left Vertebral Artery from a blow with the fist.—Death from compression of the Brain and Spinal Cord.*—By W. E. TAYLOR, M.D., Surgeon U. S. Navy.

While I was attached to the United States flag ship "Pensacola," South Pacific station, the following case occurred: On 9th Sept., 1872, while lying off Payta, Peru, a party of men from the ship were allowed to go on shore "on liberty." The subject of this article, P. B., a stout, healthy man, 23 years of age, being one of the party. About 12 o'clock the same night, a messenger came on board with the information that B. was in a dying condition in a saloon on shore; but nothing further could be elicited from him. Pd. Asst. Surgeon, J. M. Flint, and myself, went on shore as soon as possible and, upon our arrival at the saloon, found the man dead. A number of his shipmates and some natives were in the room. In reply to our inquiries we were informed that about 11 o'clock, B. and one of his shipmates were wrestling, when a third party, also one of the crew, came behind B. and struck him two blows with his fist on the back part, and a little to the right side of his head, and that B., who was stooping at the time, arose, staggered two or three steps, and then fell to the floor in an unconscious condition; he never spoke, but remained insensible until death, which occurred in from five to ten minutes. All hands had been drinking more or less, although none of them were intoxicated; the man who committed the assault had disappeared, and as no more information could be obtained, the body was put in the boat and taken on board ship.

Upon our arrival, the external surface of the body was examined. There was no sign of contusion nor fracture of the skull, but upon examining the cervical spine, a marked depression was found over the atlas, and the spinous process of the axis seemed unusually prominent. This condition of things caused a suspicion of spinal injury, either dislocation or fracture, or perhaps both. No further examination was made at the time.

Post mortem examination was made on the 10th at 12 o'clock, about thirteen hours after death; rigor mortis well

marked, and body well nourished. There was an unusual amount of post mortem discoloration about the neck, shoulders and face, which was very marked on the right side and on right ear, these parts being nearly black. There had also been slight epistaxis. The skull was opened in the ordinary manner, and the membranes of the brain were found to be distended with dark, fluid blood, which flowed freely during the removal of the organ, the quantity being roughly estimated at from four to six ounces. The effusion of blood may be divided into two portions, viz: the larger quantity fluid in character, existed between the visceral and parietal layers of the arachnoid, and escaped when the membranes were opened. After removing the brain, its surfaces superior, lateral, anterior, posterior and inferior were seen to be covered with an effusion of dark blood and, upon examining this the second portion of the hemorrhage, it was found to be beneath the pia mater throughout its entire extent, following it into the convolutions, and existed in thin coagulated laminæ. This portion of the effusion was more extensive at the base than at any other part. The third and lateral ventricles were distended with dark fluid blood, and the fourth was nearly filled with a clot. The medulla was surrounded by a layer of coagulated blood. The substance of the brain seemed healthy, and there was no evidence of disease of its vessels.

The upper portion of the cervical spine was exposed by an incision. The atlas was found rotated to the left to the extent of about one inch, and displaced forwards about one half an inch or perhaps a little more. When examined through the foramen magnum, the anterior surface of the posterior arch of the atlas could be plainly seen encroaching upon the spinal cavity (to a greater extent on the right side on account of the rotation), to a sufficient degree to produce fatal compression of the cord. The luxation was almost complete, the atlas being moved almost entirely from its articulating surfaces, with both the occiput and axis but, owing to the peculiar rotation imparted by the blow, the odontoid process was not detached from its connections. There was no sign of fracture of either the skull or vertebræ. The hemorrhage in this case was from the left verte-

bral artery, which was ruptured by the great strain upon it at the time the atlas rotated and luxated from right to left.

Other organs were not examined, sufficient cause for death having already been discovered. Either one of the above conditions, i. e., the luxation, or the hemorrhage, taken by itself was sufficient to cause death. Unfortunately the precise condition of the cord at the point of compression by the luxated vertebræ was not ascertained, so it was impossible to judge just how much the cord was compressed or otherwise injured; but, whatever the amount of injury may have been, being above the origin of the phrenic nerve, very much increased its gravity. Yet, we considered that possibly, life might have been prolonged some hours had the luxation not been complicated by the profuse cerebral hemorrhage; this, in the absence of more positive knowledge of the spinal lesion is, to a great extent a matter of conjecture, and the answer to the question put to the writer, before a Naval general court-martial, as to cause of death, viz: "compression of the brain and spinal cord," seemed to include all the immediate causes, without reference to the share of any particular lesion.

From the previous healthy condition of the man, and all the circumstances connected with his death, there was no doubt but that the lesions were the result of external violence, applied in the manner already indicated.

Institutes and Practice of Medicine.

ART. IV.—*Carbolic Acid in Intermittent Fever.* By V. HAVARD, M. D., A. A. Surgeon, U. S. A., Camp Grant, A. T.

The experiments of Freulich, who reports eight cases of inveterate intermittent with enlarged spleen, treated successfully by the administration in each case of not quite 2 grains of carbolic acid, gave rise to hopes that a new and most useful application of the disinfecting power of this popular medicine had been discovered. Many experiments were, no doubt, performed to corroborate those of Freulich,

but we find few of them recorded; evidently the result of disappointed anticipations, and it seems as if the anti-periodic property of carbolic acid had now but few supporters.

Serving at a Post where, after the summer rains, none are exempt from Arizona fever, I have tested the value of carbolic acid as a substitute for quinine. I said Arizona fever advisedly, it resembles none of the stereotyped forms of the text-books. It is mostly quotidian, but in many cases presents no periodicity, coming at any time of day or night, with or without chills, at variance with the time of previous invasions. It has a strong tendency to fall into a mild and continuous typho-malarial type, which often occurs after the real and tangible paroxysms have been overcome by quinine.

In order that my experiments should not fail from insufficiency of the drug, I have given it in rather large doses, from 2 to 3 grains, three times a day. The following table of cases will explain itself:

No.	Carb. Acid Administered	RESULT AND REMARKS.	Apparently cured by Carb. Acid.
1	8 days	Typho-Malarial—no improvement; on the 9th day acid discontinued—general treatment.....	
2	4 days	Somewhat better, but fever persists. On 5th day takes quinine; discharged 4 days later.	
3	1 day	Had fever for several days.	On 2d day.
4	4 days	No improvement; on the 5th day takes quinine; discharged 5 days later.	
5	3 days	Is getting worse—on 4th day takes quinine; discharged next day.....	
6	2 days	Typho-Malarial.	On 3d day.
7	5 days	Fever worse every day—on 6th day takes quinine; discharged next day.....	
8	2 days	No improvement—on 3d day general treatment; discharged 5 days later.....	
9	2 days	No improvement—on 3d day takes quinine; discharged next day.	
10	4 days	Fever partly subdued—headache remaining.....	On 5th day.
11	2 days	First attack of fever.....	On 3d day.
12	3 days	No improvement—on 4th day takes quinine; discharged next day.....	
13	2 days	No improvement—on 3d day takes quinine; discharged on 5th day.....	
14	2 days	Tertian Intermittent	On 3d day.
15	2 days	No improvement—on 3d day takes quinine; discharged 3 days later.....	
16	2 days	....	On 3d day.
17	4 days	No improvement—on 5th day takes quinine; discharged 3 days later	
18	5 days	No improvement—on 6th day takes quinine; discharged 3 days later....	
19	3 days	Typho-Malarial.....	On 4th day.

It appears that out of 19 cases treated by carbolic acid, 7 were discharged after the exclusive administration of this remedy; 1 on the 2d day of the disease; 4 on the 3d day; 1 on the 4th, and 1 on the 5th. In spite of appearances I am reluctant to give the acid much credit for their cure; it effected nothing in the attacks of some gravity and, when it acted favorably, its effects were so rapid that it seemed as if they must be, at least partly, due to the intervention of nature. These cases were mild and subject to marked fluctuations from day to day.

In the 12 remaining cases, carbolic acid was useless, and after giving it as long as the condition of the patient would permit, had to be replaced by quinine, a few doses of which would in the majority of cases, accomplish the desired result.

In No. 1, a patient suffering with characteristic typho-malarial fever, carbolic acid given for 9 consecutive days had no effect. It should be mentioned that in cases of this type, frequently the sequel of quotidian intermittent, quinine itself loses its power and the treatment becomes expectant. Nos. 6 and 19, also typho-malarial, on the other hand, are among those that were apparently cured by carbolic acid, one on the 3d day, the other on the 4th. Of the eleven cases where quinine had to supplant carbolic acid, in four it operated a cure in one day; thus, strikingly exhibiting its specific action in intermittent fever, even in the very irregular form prevalent in Arizona.

In conclusion, I may be justified to say that carbolic acid possesses but little, if any, of the antiperiodic properties attributed to it. If deprived of all other remedies in a malarious region, I might administer it, but would expect no result from its use. However, there is still room for further observations.

ART. V.—*Acute Diseases of the Heart, Accompanied and Masked by Functional Derangement of the Brain.* By W. F. McNUTT, M. D., M. R. C. S. Ed. L. R. C. P. Ed., San Francisco.

That these fearful cases are not oftener recognized in our general practice is probably due, not so much to their unfrequent occurrence, as to the fact that they are not treated of in our works on the theory and practice of medicine, and scarcely more than alluded to in our systematic works on disease of the heart. Yet few as are the cases recorded, it is quite certain that grave cerebral symptoms occur frequently enough in acute affections of the heart to establish beyond a doubt their pathological connection. At the same time it must not be forgotten that grave cerebral symptoms are essential elements of disease of the heart.

Our object now is not to attempt to explain the pathological connection, but simply to report its manifestations.

Of the few who have written on the subject, George Burrows, M.D., late lecturer on the Principles and Practice of Medicine at St. Bartholomew's Hospital, in his work entitled "Disorders of the Cerebral Circulation, and on the connection between Affections of the Brain and Diseases of the Heart," has given the subject the most thorough investigation.

Prof. A. Flint, who, in his admirable work on diseases of the heart, devotes a chapter to the cases, says:

"But in certain cases, cerebral symptoms are developed, which are highly important in themselves, and also because they serve to mark the local symptoms of cardiac disease. The cerebral symptoms now referred to resemble those which characterize different affections of the nervous system. Inflammations of the meninges of the brain, mania, dementia, coma, epilepsy, tetanus and chorea may be simulated in cases of pericarditis, the latter disease being generally overlooked before death, and examination *post mortem* revealing no appreciable lesions of the brain or spinal cord, adequate to explain the phenomena observed during life."

Prof. Flint reports three cases which came under his own

immediate observation. Of the first case, after giving a detailed account of it, he says:

"The existence of pericarditis was not suspected in this case prior to the autopsy. Up to the fourteenth day the affection was supposed to be exclusively cerebral, no symptom pointing to the chest as the seat of disease." Of the second case, he says, "At the time I was observing the patient, the idea of pericarditis did occur to me, but on thinking of the case afterwards, a resemblance in the character of the delirium to that of the preceding case led me to suspect this disease, so that before the autopsy was made I ventured to predict that it would be discovered. The pericardium was universally adhered by recent, tender adhesions." Of his third case, he says, "The physical signs, exclusive of friction murmurs, were sufficient to establish the existence of pericarditis with moderate effusion."

Dr. Burrows, in his work already refered to, gives a detailed report of sixteen cases, of which six came under his own observation; of the sixteen cases eleven died, and of the eleven, in nine pericarditis was not suspected until the cause of death was discovered by the *post mortem*.

Prof. Flint, in summing up the symptoms exhibited in Burrows' sixteen cases, says:

"In the sixteen cases detailed in Burrows' work were manifested delirium, convulsions, agitation of the limbs resembling chorea, a state of dimentia, a species of coma, seizures resembling apoplexy, and tetanic spasms."

The character of the delirium in most of the reported cases, was characterized by taciturnity and maniacal excitement "under the influence of delusions, involving the idea of having committed some crime." In my own cases, as will appear below, one patient would insist upon it that he had been stealing from his employer and should be sent to jail; the other, that he had committed a great mistake in business.

The following cases presented most of the symptoms exhibited in the case of Drs. Burrows and Flint.

On April 6th, 1872, I was called to see Mr. W. He complained that he had taken cold by standing in the draft at his business, and thought that I might give him a simple cough mixture for his hoarseness. He also said that he had been restless for several nights, and disposed to talk of his business while sleeping, but thought that there was no reason for stopping at home, as he was not sick in any way

other than the cold. Mr. W. was about twenty-seven years old, born in Massachusetts; nervous temperament; dark complexion; large active brain, and was a very hard energetic worker. His mother and one of her sisters died of heart disease; her remaining sister is the subject of valvular disease of the heart, and her only brother died of heart disease. His cousin Mr. H., son of his mother's sister, I examined a few weeks since, and found valvular disease. He kept at business until the 11th, when I visited him and found him in a terrible state of excitement, and complaining bitterly of pain in the head; pulse 120; skin hot and dry; expression anxious and uneasy. I applied a little cold water to his head, and in a few moments he was very quiet, and declared himself free from all pain but said that he knew the pain would return if I left him. The sudden subsiding of all pain and excitement, and the means used, showed plainly the nervous character of the disease. During the remainder of the day he was at times very quiet, and inclined to be taciturn, and at times in a very excited and hysterical condition. Next morning (the 12th), he sprung suddenly from the bed in the most furious maniacal state seized his wife, and was about to throw her over the bannister, saying that he was sorry that he had to kill her, but that he must do it; he probably would have done so had he not been controlled. Dr. Maxwell who happened to be passing at the time was called in, and told me that he had left him a raving maniac. When I arrived, he was something quieter, but continued during the remainder of the day delirious, at times taciturn, and at times maniacal, and laboring under the delusion that he had committed a great mistake in accepting a recent business partnership, which had ruined his prospects for life. During the 13th and 14th, he was most of the time delirious, as on the 12th, with occasional spells of agitation of the limbs resembling chorea, also on several occasions had slight tetanic spasms; finally died comatose at 1 A.M., on the 15th. I was unable to account for his peculiar condition, or to diagnose his disease until the evening of the 13th, when I thought I could detect the friction sound over the heart. I then, of course, suspected pericarditis, and told one of his friends so. On the 14th however, a cardial murmur was very distinct towards evening, leaving no doubt about the nature of the case. At the same time, a *post mortem* would have been of great value to this report, but I was not able to obtain it. I may state that the symptoms of pericarditis were so completely marked by the indications of disease of the brain and nervous system, that had my attention not been called

to this case by a case a few weeks previous that Dr. Eustace Trenor saw with me, I would probably not have examined the heart carefully every day as I did, and consequently would not have discovered the pericarditis.

The case that Dr. Trenor saw with me is as follows:

I was called to see a lad of nineteen years old, of nervous terperament, in the early part of November, 1871, whom I found suffering with inflammatory rheumatism. He had already been two days sick. The attack was quite severe—ankles, knees, wrists and shoulders all swelling and very painful. The swelling disappeared in two weeks, and the fugitive pains that continued a week longer also ceased, leaving the lad convalescent on December 1st. December 15th, I was summoned in haste to see him, and found him delirious. He was charging himself with having committed a great crime in the way of robbing his employer, and that he had been a *rough boy* and that he would be sent to jail. Hearing that opiates had very little effect upon him, and his condition continuing for two days—he at times being taciturn and at times greatly excited, I asked Dr. Maxwell to see him. Not expecting to find this train of symptoms for pericarditis, although he was just recovering from acute rheumatism, we examined carefully with reference to meningitis, thinking it might be possible that it was a case of rheumatic meningitis. We could find no evidence of it. His expression was so suggestive of masturbation, that Dr. Maxwell questioned in regard to it. He confessed the habit, but as he accused himself of everything that was bad, it was doubtful whether he had practised masturbation or not. He grew steadily worse, his delirium being characterized by spells of violent mania, alternated with tetanic convulsions and agitations of the limbs, having also had, in the meantime, several hemorrhages from the nose. At this time a physician was called who immediately pronounced the case typhoid fever, saying that his typhoid patients always bled at the nose, had frequently been maniacal, and usually had tetanus and convulsions! Supposing the man to be a knave or a fool I declined to argue the matter with him, but sent for Dr. Trenor who saw the patient next morning, and after carefully examining him expressed himself as fully certain that it was not a case of meningitis, but thought that he detected cardial friction murmur, and considered it highly probable that it was a case of pericarditis. I was unable even then to satisfy myself of the presence of of the friction murmur. We decided to continue the opiates and to carefully examine him again next morning. In the

afternoon, however, our *Typhoid fever* friend called and advised the father that, as Dr. Trenor had had charge of an insane asylum, it was very wrong to allow him to see the patient, consequently I received a note from the father saying that Dr. —— objected to Dr. Trenor visiting his son. Thus we left our very interesting case to our *Typhoid fever* friend.

I since learned from his mother that he continued in the same condition for about two weeks (except that his convulsions were more severe), when they removed to San Rafael, where he slowly recovered and is now at work as usual. Since I have carefully studied the cases of Drs. Burrows and Flint, and compared the symptoms, the character of the delirium, the convulsions, the tetanus and chorea with those exhibited in this case, I entertain no doubt about the case having been one of rheumatic pericarditis.

Gynecology and Diseases of Children.

ART. VI.—*Premature Artificial Labor.* By A. ANDREI, M. D., San Francisco.

[Concluded from page 472.]

Nevertheless, admitting the general indications of this operation in pelvic strictures, we find that it is of the greatest importance to study the special indications, and not vaguely assert that this operation must be performed every time that a full term delivery is recognized as impossible. This operation which aims at saving the life of the fœtus, and to avoid performing any serious operations on the mother, should only be attempted when the vitality of the fœtus is fully established. The French Code has laid down the end of the sixth month as the period of pregnancy in which the fœtus may live; but nevertheless, all physicians agree that it is only in the seventh month that the fœtus is more apt to live.

That which constitutes the practical importance of this study, is to determine the limits of this operation with the greatest precision, viz: to what degree of stricture may we stretch the use of this operation.

This is a great point of dispute on which practitioners have not been able to agree. Thus Frariess or Carus fix no limits, but merely state that experience has shown every time that the pelvis is so contracted in such a manner as not to allow of the passage of a living fœtus--recourse must be had to a provocation of delivery. Titgen requires it to be from eighty-one to ninety-four millimetres—from three to to three inches and a half. Stoltz, from seventy-five to eighty-five millimetres--from two and three-fourth inches to three and one-fourth inches.

Velpean admits that a premature delivery should be incited when the pelvis is less than three inches and two or three lines, and more than two inches and a half. The English obstetricians provoke delivery, even with more considerable strictures as they reject symphyseotomy, and only resort to the Cesarian operation when the pelvis is so restricted as to render embriotomy impossible. Provoking delivery below the limit adopted on the continent, they have the chance, if the fœtus is proportionally small at the period of its intra-uterine life, of seeing it live, and if they are obliged to resort to craniotomy, this operation will offer neither the same difficulties nor damages as at the term of pregnancy.

In order to determine the pelvic dimensions which justifies a forced delivery, and as the operation is only proposed after the seventh month of pregnancy, it is necessary to know what is the length at this period of the bi-parietal diameter, which, in a great number of cases, correspond to the vitiated diameter of the pelvis (antero-posterior). Without quoting the tables of several authors, which give the average extension of the transversal diameter of the head at different periods of the intra-uterine life, I will say that the collective results of the researches of Mad. Lachappelle, Paul Dubois, and Stoltz, give the end of the seventh month, as showing the average length of the bi-parietal diameter of six and a half centimetres to seven; the reduction of the

head, allowing us probably four or five millimetres of reduction. Thus it is necessary that the smallest diameter should be at least six and a half inches centimetres, so that with probability of success, we can provoke a permature birth.

It is still more certain that the fœtus, not having reached the period of pregnancy, the head is more susceptible of reduction; yet nevertheless, we cannot avoid perceiving that the result of the operation may be compromised from want of vitality, and thus the effects of the compression will be more manifested. Besides the susceptibility of the reduction of the head, we may have another favorable condition, which is, that when the head presents itself in such a manner that one of the *parietal bosses* corresponds to the sacro-iliac symphysis, and the other behind the horizontal branch of the pubis, at a point not too near the symphysis; in such a position the head presents a transversal diameter sensibly smaller than the bi-parietal, which is in connection with the sacro-pubian diameter.

Still we can affirm that when the stricture is inside of the limit given, death of the fœtus is often occasioned by the effects of the compression. Notwithstanding the truth of this general rule, there still exists some rare exceptions of successful deliveries, where there was a pelvic stricture of five and a half centimetres.

Professor Depaul reports two of his own observations, in which the delivery terminated successfully, although the pelvis was only 5½ centimetres in its antero-posterior diameter. Basing himself on these two facts, Prof. Depaul believes the provocation of premature delivery to be admissible even with a stricture of 5½ centimetres, either because he hopes to obtain a greater reduction than that ordinarily admitted or, because premature delivery not having succeeded in delivering a living fœtus, embryotomy then offers the last resource, and is rendered easier by the small size of the fœtus.

The majority of obstetricians believe that there is little hope of a successful delivery, when the pelvis stricture is below 6½ centimetres, and regard this as the only degree of stricture which would authorize a provocation of premature

artificial delivery, unless we wish to consider premature delivery as a preliminary operation in order to facilitate embryotomy.

Admitting that premature delivery becomes impracticable and uncertain, difficult and dangerous, below 5½ centimetres, it remains to fix the limit above which it is useless to provoke delivery, and what period of pregnancy should be selected for the operation.

It will be understood, how difficult it is to solve this double question in a precise manner; not so much so from the difficulty of exact measurement of the pelvis, particularly if the stricture be not very considerable, than from the inability of stating the precise period of pregnancy, volume of the fœtus, and reductibility of the head, differences which clinical observation cannot foresee.

In cases of established twin pregnancy, if the strictured diameter is not below three inches, we may incite delivery, as the small size of the twins allows of a possible exit, even if there existed a stricture. The case of a first delivery has been considered by several authors, as a counter-indication to an incited delivery. This precept does not seem to me to be justified, either by the absence of danger in the operation, or, also admitting an error of a few lines in the strictural measurement, what evils might not arise? If the pelvis is broader than was supposed, the delivery is easily effected. On the contrary, if the defect is more considerable, the fœtus will undoubtedly perish, and the mother would be saved whereas, waiting for the full term of pregnancy, both would perish. Therefore, rather than to prescribe in the first parturitions, premature delivery should be used every time a stricture of the pelvis presents itself, rendering impossible a full term of delivery.

With women who have been several times in child-bed, the derangement is infinitely less, as we are well posted on the results of previous deliveries. Among these however, if the full term delivery is impossible, or very laborious, I find the indication of provoking a premature delivery very weak, whatever the stricture may be.

These are facts that tend to demonstrate the slight amount

of danger, and the advantages of premature artificial delivery in those cases where, pelvic defects are very numerous and conclusive.

A report of Lacour, comprising the majority of cases published up to the present time, shows the following results in two hundred and twenty-five cases for provocation of premature and artificial parturition in pelvic stricture; of this number, one hundred and fifty-two fœtus were born alive, and seventy-three died at birth.

In England, in ninety cases, forty-eight lived and forty-two died; whereas, in Germany of the same number, seventy-five lived, and fifteen died.

This differential result explains itself in this; that English obstetricians very often incite parturition at a period of pregnancy, where vitality is very uncertain, accompanied by well manifested pelvic strictures. Whereas German obstetricians often provoked the same without any precise indications, and without the necessity of premature and artificial parturition, even where one would expect a natural and full term delivery.

In fact, we can only repeat, that for the mother, a premature and artificial parturition constitutes almost, in normal conditions, a full term delivery.

OBSERVATION.

Angelique Rausselat, aged twenty-seven, washerwoman, eight months pregnant by her first labor, entered the service of Prof. Depaul. She presented evident traces of rachitis along the tibias and femurs. Deformation of the vertebral column to the right; height, one metre and thirty-nine centimetres; arms, short; began to walk at three years; menstruated at fifteen, three or four days a month; pelvic stricture six and a half centimetres. Prof. Depaul decided to provoke permature artificial parturition, giving the preference to Dr. Tornier's dilator. In effect, the dilator was introduced the morning of the 14th of April, at a quarter past ten. Immediately after introducing the instrument, parturition began, but with such extreme slowness as only to produce a dialtation of the size of a five-franc piece.

On the 16th, at a quarter past five, Prof. Depaul ruptured the membranes, and along with the waters came the umbilical cord, which had been felt before the rupture of the bag of waters.

This circumstance decided Prof. Depaul to help the delivery by applying the forceps. After long fruitless endeavors to extract the fœtus with the forceps, recourse was had to cephalotripsy after first perforating the brain, by means of which he was enabled to extract the fœtus. The delivery presented nothing peculiar, and the woman left the clinic after a few days in perfect health. Prof. Depaul recommended her in case of another pregnancy, to come to the hospital at a less advanced period, viz; about the seventh month.

The woman, Rausselat, not forgetting the earnest recommendations of Prof. Depaul, presented herself again at the clinic on the 27th of January, 1868, to be received. On being questioned, she said she had had her last menstruation on the 26th of June, 1867, and had become pregnant in the first days of July, from the feeling of nausea and pains in the breasts. On being examined, the neck of the womb was found to be movable, supple, with the head for presentation. Prof. Depaul decided to provoke a premature artificial parturtition, and on the morning of the 15th of February he introduced the dilator of Dr. Tornier's without difficulty, and without occasioning either pain or loss of blood. On visiting the patient at four P. M., it was found that the first pains had commenced at twelve P. M. following each other rapidly, but of short duration. The tube being in the vagina and the neck of the womb dilated to the breadth of the caoutchouc ball of the dilator, he inserted his finger until it touched what seemed to him to be the fœtal head. The fœtus moved considerably. Feb. 16th. The woman had pains all night, and the neck has dilated to the size of a five-franc piece. In order to hasten the delivery and to disengage the head, Prof. Depaul ruptured the bag of waters at half after eight. The suffering then increased, and the Professor made an application of the forceps. He commenced by applying the small forceps, and

twice the head slipped away. By a third application of the ordinary forceps, he managed to seize the head, and first pulling alone, and then with the assistance of Mon. Charpentier (Chief of the clinic), he managed to extract a male infant alive, weighing 1 Kilog: 800.

Diameters of the head, O. F. 10½; O. M. 12½; B. P. 8½; S. O. B. 9. The woman had a loss of blood which ceased after the extraction of the placenta. An hour afterwards nearly 150 grammes of vaginal clot were withdrawn. Two grammes of powered ergot were administered. During the day she had another loss, with syncope. Pulse 100; skin hot; face pale; the belly rather tender; the uterus well contracted; no chills; nausea without vomiting; the ergot was repeated. Feb. 17th. This morning the pulse was 124; skin hot; the belly rather tender at the lower part; no vomitings. Extract of belladonna was prescribed for frictions on the belly, and internally 2 grammes of tincture of aconite in 150 grammes solution. In the evening the pulse was 120; skin hot; belly pliant; pains in the right side; vomiting; face very pale. Feb. 18th. Pulse 104; skin hot; belly pliant; increase of uterus in size; no vomitings; passage of natural urine. In the evening, the belly rather painful; pulse 124. 19th Feb.—Pulse 100; general condition more satisfactory. 20th Feb.—Well; pulse 96; no pain about the belly; general condition satisfactory. The patient was convalescent in a short time, and continued to improve rapidly. She left the clinic with her children the 29th February, quite well.

With all respect for the authority of the French obstetrician, nevertheless I cannot help making a remark suggested by the history of the case which applies to the principle given out by Prof. Depaul. In speaking of the strictural limits, I said, how could the Professor admit of provocation of delivery, with a stricture of 5½ centimetres. According to my views, in this case, observation shows that the counsel was exaggerated and practice not justified, as the result was not attained.

Thus considering that a provoked delivery is absolutely necessary to save the life of the fœtus, and not as a means

of facilitating embryotomy, it is undeniable that by making a general rule of the possibility of premature delivery, with a stricture of 5½, the principle of this operation would be destroyed. In the first pregnancy, the delivery was provoked at eight months, that is to say at a period when the biparietal diameter offered larger dimensions than the capacity of the pelvis. What was the result of this much hoped for reductibility of the head? Not only was the natural reductibility insufficient, even the many attempts to apply the forceps were fruitless, and in order to extract the fœtus, it was necessary to destroy it. In the second case of pregnancy, the result was very different.

By provoking delivery at seven months, where the biparietal diameter offered by its dimensions, are in almost mathematical conformity with a stricture of 6½ centimetres, a living fœtus was obtained, which probably would have been obtained without artificial interference, if Professor Depaul had not wished to diminish the woman's sufferings by hastening the delivery with the forceps. The result of this practical deduction seems to me to be logical, if with a stricture of 6½ centimetres, we have not succeeded at eight months pregnancy, where the normal condition relative to the size of the fœtal head, viz.: where the bi-parietal diameter does not exceed the normal medium, in obtaining a result looked for in premature artificial delivery, I ask with what hope of success, can we provoke premature delivery with a stricture of 5½ centimetres, unless we have to deal with exceptional cases which Prof. Depaul cites, where he has a head of a diameter excessively small, compared with the degree of dystocia.

This reductibility of the head based on the two observations made by him, is an exaggerated illusion of Prof. Depaul. Since (apart from the whole head presenting a lesser volume than usual), I must confess it is difficult to understand how a pelvis of 5½ centimetres, can give passage to the normal head of a fœtus of seven months, unless we wish to push incredulity so far as to doubt the exact diagnosis of the pelvic vice.

Hereby leaving all the responsibility of his convictions

and practice to the French clinic, I will only say that all obstetricians agree to provoke premature delivery at 6½ centimetres, when the objective is the success of the operation, and that we do not consider provoked delivery as a preliminary operation to embryotomy.

ART. VII.—*Reply to Dr. Andrei.*

[We have received the following for insertion.—ED.]

Messrs. Editors: Whenever a physician publishes an article in a medical journal, it can only be for the purpose of informing or instructing his "confreres" about a case and the skillful manner in which this has been treated, particularly when either case or treatment are new.

In your Oct. number I observed an article: "*Craniotomy and Cephalotripsy in a case of Facial Presentation,*" etc., of which I expected to learn a new and successful method of delivering a poor suffering patient, perhaps with a greatly deformed pelvis, of an abnormally large child which otherwise would have been impossible; but to my great astonishment I was very much mistaken. I found neither anything new, nor any information or instruction, but to the contrary I found a mixture of operations which reminded me of the ancient Greek eclectic school with Areteus at the head, who discarded the works of every author before them, and yet their own was nothing more than a compilation of those of Hippocrates and those of the Empirics.

Enough to say that almost every operation had been resorted to by Dr. Andrei and his confréres, which could possibly have been resorted to in a case of preternatural labor, except Cæsarian section.

Dr. Andrei takes great pains in stating the very correct diagnosis of the *Presentation and Position* without, however, mentioning anything about the condition of the pelvis; perhaps never thinking of taking an accurate measurement of the diameters of the straits.

Is an abnormal presentation or position ever sufficient to justify any other operation than *version?* I think not; but in this case, if we should only judge by the presentation and position, supposing the pelvis normal or nearly so as

the accoucheur does not say anything to the contrary, no more interference could have been necessary but perhaps the forceps. Yet those were tried in vain, and consequently another method was found necessary, and the consulting physicians agreed on craniotomy—without however, measuring the diameters of the pelvis!

I admit that the operation was justifiable taking it for granted that the child was dead, although the absence of sounds of the fœtal heart and placental souffle alone are by no means positive signs of the child's death; furthermore, their value depends much upon the skill of the auscultator. But taking everything for correct, were not the steps taken in the operation rather negligent? The fœtal head had not been engaged yet, consequently I think there must have been a method of entering the perforator more in the median line of the cranium, after which with the aid of the blunt hook in the foramen magnum, perhaps the child might have been easily extracted.

In this case the next step was the operation of cephalotripsy by which the size of the fœtal head was reduced to such a degree that nothing else would have been necessary, had the condition of the patient not become so alarming as to necessitate the termination of the labor as soon as possible.

At this stage now the author resorts to the *cranioclast* of Dr. Simpson. Why? Was it still necessary to crush or compress the head after making craniotomy and cephalotripsy? I should think after those operations, if any instrument becomes necessary to effect a speedy delivery, the forceps were certainly sufficient.

But what seems still more strange to me is, as Dr. Andrei has been acquainted with the cranioclast and, as I presume, had it there with him that he did not at once resort to the operation of *cranioclasm*, instead of letting the patient pass through a number of operations, each of which was, to say the least, injurious to her.

Perhaps I do not entirely understand the cranioclast used and described by Dr. Andrei, but with the one which I have now before me, it is certainly not very difficult to crush the fœtal head as flat as a pancake without using any other instrument. The compressing power in this cranioclast consists in a screw, by means of which the handles (which are not wooden ones like Dr. Andrei's) are approximated. So there must be some difference between these instruments, but I have no doubt if that of Dr. Andrei has the cranioclast of Sir J. T. Simpson as he states, the fœtal

head can be crushed with it, without craniotomy and cephalotripsy. For it was the intention of the inventor to introduce the instrument for the purpose of doing away with so barbarous an operation as craniotomy and cephalotripsy.

Allow me to state however, that the cranioclast should be used in a case of a pelvis, whose *antero-posterior diameter* of the superior strait is less than 3¼ inches, or whose transverse diameter of the inferior strait is less than 3 inches, and both those diameters *not below* 2 inches, and only then when the child is dead.

But even the manner in which Dr. Andrei performed cranioclasm is not a very prudent one, as I must consider it wrong to enter one blade into the perforation instead of adapting both blades in the same manner as he would the forceps. Did he not expose the wall of the vagina to the sharp cutting edges of those crushed bones?

After all this I was by no means surprised at, but rather expected the finale:

"In spite of the most careful treatment, conducted by Dr. Bowie, the woman succumbed to peritonitis after —— days."

JOSEPH KURTZ, M.D.

San Francisco, Nov. 15th, 1872.

ART. VIII.—*A Case of Partial Laceration of the Perineum during Labor—Operation by Means of Suture, and Cure.*

C. FARQUHAR, M.D., Zanesville, Ohio, reports that Mrs. S., *æt.* 17 years, was in labor with her first child, August 18, 1872. I was called to this patient at 9 o'clock A. M., and on making the necessary examination, I found the os uteri about the size of an old-fashioned penny; thin, but dilatable, and the sac of waters slightly protruding. The perineum was dense, and seemed unyielding. The pains were very acute and sharp; to use a common expression, "they were scarcely on before they were gone." I came to the conclusion that I would patiently wait, and make as few examinations as possible. At 12 o'clock M., the bag pre-

sented at the os externum, and in a few moments after, another pain coming on, the sac was ruptured, the waters escaped, the head of the child then descended on the perineum. From this time the pains increased very much in intensity and duration, but owing to the smallness of the outlet, and the unyielding nature of the perineum, the expulsion proceeded very slow. Finally, however, under the continued forcible uterine contractions, the perineum began to distend, and during the expulsion of the head, immediately before the laceration, the perineum became distended to such a degree that it seemed but little thicker than the paper on which I now write. Anticipating the accident which followed, all of my efforts to prevent it proved abortive. During the expulsion of the head, the perineum gave way its entire length, involving the sphincter ani muscle, and also considerable hemorrhage followed the rupture. As soon as the placenta was removed, an examination of the rent was instituted, which revealed a very severe and deep wound. It may not be improper to mention that the labor in this case was natural, and during its progress nothing was administered excepting the part of a cup of warm store tea. My father, Dr. E. A. Farquhar, was now called in, and after washing the wound, and removing with the scissors a portion of the fourchette, which was torn into shreds almost, we proceeded to close the wound by means of four interrupted sutures. The sutures employed were made of very heavy saddler's silk; the needles used were curved and very strong, and by means of that very convenient little instrument known as the "needle holder," we experienced no trouble in the introduction of the sutures, which were inserted very deep in this case. A napkin, previously wet with cold water, was then applied to the perineum and secured in position by means of the "T bandage," which was ordered to be kept wet with cold water.

The patient was at once put on small doses of morp. sulph., to be given every four hours, with a view to suspend the action of the bowels. I will mention that we used no chloroform in this case, for the reason that the parts were temporarily paralyzed from the long-continued distention. This paralyzed condition was so complete in this case, that our patient suffered but little pain from the introduction of the needles, which is one great argument in favor of operating immediately after delivery. This variety of paralysis being of a reflex character, and consequently not traceable to any congestion or injury to the spinal cord, it generally passes away in a short time.

To resume the after treatment: About the fourth or fifth

day the vaginal discharge became very copious and offensive, which was corrected by frequent washings with cold water, containing bromo-chloralum — a two-ounce female glass syringe being used, for the purpose of clearing out the accumulated pus within the vagina.

This treatment relieved the offensive odor at once, causing, by its refrigerating and cooling effect, the patient to feel very much more comfortable and easy than she did before its use. During the whole period of convalescence, but little swelling occurred to the parts, which may be attributed to the water dressing externally, and the frequent use of the vaginal douches. From the hour of delivery up to the fifteenth day, the urinary bladder was regularly relieved with the catheter, two and three times within each twenty-four hours. On the twelfth day the sutures were removed, leaving the external appearances of the recent laceration in a highly flattering condition.

The "T bandage" compresses, and binding of the feet together, were continued from the first to the twentieth day. On the morning of the twenty-first day after delivery, an enema of soap suds was ordered, which moved the bowels on the succeeding morning, this being the first motion of the bowels since confinement. During the whole period of treatment no unpleasant symptoms occurred, the appetite was good, and the strength excellent. On the twenty-third day after accouchment, my patient was out of bed, cured, and of course was discharged from further professional notice. In concluding this case, I will here remark that this patient is now doing her own house-work; and, upon inquiry, she informed me that she feels first-rate, experiencing no inconvenience whatever from her late injury.

Lacerated perineum is, without doubt, one of the most unfortunate and distressing accidents of labor, needing the aid of but few words to recommend itself to our attention. It is an accident of comparatively infrequent occurrence; and I presume few, if any medical men, fail to meet with it in greater or less severity, in the course of their practice.

In regard to the frequency of the accident, authors on obstetric practice are very limited indeed, in regard to statistics upon this subject. Some are contented with the declaration that the accident does occur to the parturient female more frequently than is generally supposed, "but because of the natural modesty of women, and from despair of obtaining relief, the accident is kept secret with the sufferer."

Again, some authors declare a "particular proclivity of primiparæ" to the accident, while others admit that it is *not* strictly peculiar to them.

If, in all cases of lacerated perineum in primiparæ, the fact could be established that such cases were well advanced in years, say 28, or upward, then the evidence would be clearly in favor of frequency of occurrence in primiparæ.

There has been but little written on this subject, and I might safely assert, without fear of contradiction, that the reasons therefor most certainly was not for lack of cases, nor inability of the attending physicians to do so. Those who entertain exalted opinions concerning their own ability to do all things well, may imagine that such an accidental lesion should not occur in the hands of a *careful* and *competent* practitioner; an inference, however, not countenanced by the records of obstetric medicine.

It has occurred in the practice of the sages and most noted accoucheurs of the civilized world, and some of its causes can neither be obviated nor removed. In the above paragraph I do not allude to accidents occurring to the perineum from the improper or injudicious use of obstetrical instruments. The degree and variety of laceration are not always the same. Some ruptures of the perineum are so small, that little, if any, treatment is required. When the laceration occupies the entire length of the perineum, but does not penetrate the sphincter ani, or where it extends, so as to divide the sphincter ani, and even the recto-vaginal septum, then we have a condition of things demanding our most serious and prompt consideration. As I have previously said, the literature on the subject of lacerated perineum is so scanty and indefinite, that one has the opinions of but few to guide him. Among the German writers the subject has been studied but little by any, excepting perhaps Dieffenbach, who directed his attention to this subject, establishing certain rules and maxims for the cure of the lesion. Since Dieffenbach, Menzel, Osiander, Wutzer and Langenbeck, have written some on the subject.

The French literature of the subject is somewhat more extensive than the German. Paré, the illustrious father of modern surgery, pointed out the applicability of sutures to the lesion. Mauriceau, La Motte, Guillemeau and Sauceraütte, at the close of the last century, adopted the suture. In reviewing such medical history and text-books as I have at my command, I am forcibly impressed with the great contrariety of opinions entertained by the ablest men of their day, in regard to the practical utility of the suture. Deuleurye says: "such solutions of continuity are to be healed without sutures." Purzos agrees with him; likewise Otrepont. Boyer even condemns attempts to heal the laceration. As recent as 1836, M. Duparcque, who wrote a

treatise on ruptures of the female generative organs and perineum, concludes that sutures are unnecessary, and advises the old general rules of position, rest, quiet, etc.

On the other side of the question, we have Dieffenbach, Sauceraute, La Motte, M. Dubois and M. Roux. The latter surgeon succeeded in curing four out of five cases he attempted. In one instance he kept the bowels confined for twenty-two days, but does not recommend others to do so.

With the English writers and surgeons, lacerated perineum seems to have entirely escaped their attention. Even Sir Astley Cooper's *Surgical Dictionary* makes no mention of the accident. Dr. F. Churchill's *Operative Midwifery*, Ramsbotham's *Process of Parturition*, and Barnes' recent *Obstetric Operations* are as silent as the grave on the subject. Ramsbotham, however, does simply mention the accident, but fails to tell us how to get rid of it. Among our American obstreticians, Prof. Hodge, in his work entitled *Principles and Practice of Obstetrics*, mentions the accident briefly, terminating with the suggestions of Velpeau, which consist in rest, bandaging the limbs together, and emollient washes. Before me is a recent copy (1872) of the *Principles and Practice of Obstetrics*, by Bedford, and nowhere between its covers does he mention the injury under consideration. *The Illustrated Manual of Operative Surgery and Surgical Anatomy*, by Cl. Bernard, M.D. and C. H. Huette, M.D., edited by Drs. Van Buren and Isaacs, give, on page 454, a very brief history of its causes, and a condensed plan for its cure, after the manner of Dieffenbach. In fact, I find, after a careful examination of nearly, if not quite all, of the authors of works on obstetrics and surgery, that while some mention it, failing to give or recommend any interference, others who do suggest a cure, are very indefinite and brief.

Among the former class may be mentioned Smellie, *On Midwifery;* Blundell, *Lectures on Midwifery;* Denman, *Practice of Midwifery*, and I might thus repeat authors almost *ad infinitum*. Miller, *Principles of Surgery*, devotes less than ten lines to the subject.

Dr. Gaillard Thomas, in his late work on *Diseases of Women*, devotes nearly ten pages to the accident, which is, perhaps, the most explicit and elaborate treatise on the subject by any American author. Dr. Isaac Baker Brown, F. R. C. S., of England, and author of a little work entitled *Surgical Diseases of Women*, gives sixty-two pages of his work to a history of the causes of lacerated perineum, their nature, variety and cure. Dr. Brown, perhaps, has investigated this subject more than any other English accoucheur. His work contains the views of nearly all of the foreign

obstetricians who have written on the subject; besides, he refers to cases reported in European *medical journals*, as well as giving a detailed account of cases which have occurred under his personal observation. With such a very limited amount of medical literature on this subject, both in Europe and America, and an apparent ignoring of the subject entirely by many excellent authors, whose experience none can question, and whose works are adopted all over the wide world as eminently standard, may possibly account, in a great measure, for the meager attention this important injury has received at the hands of the profession at large.

My object, in thus noticing the above facts, is for the reason that to them alone I attribute much of woman's suffering, not only during the painful throes of labor, but a condition of things obtain, which so cuts off all the pleasures and comforts of existence, rendering death preferable to life, or any means justifiable which seem to promise temporary quiet or oblivion.

Physicians of experience—and they are plenty who possess the ability—could not devote a little time to a better purpose than to write up this subject. The younger and less experienced physicians, no doubt, would seize such articles with avidity, and be much profited thereby. Should one unfortunate woman be spared the pain, long suffering, and drain upon her vital forces incident to a chronic fistulous abscess, and in the end a worthless constitution, I feel confident the writer would be well repaid for his time and trouble.

The medical journals of the day are too frequently loaded to plethora with lengthy impracticable articles, advancing such fine-spun and hypothetical theories, as the "Physical Basis of Life," or "Old Dynamics," generally, to be of the greatest practical utility to the hard-working, practical country physician. We need more of the opinions of experienced and practical men, advice that can be utilized, something that will repay us for reading, and when read, impart knowledge which can at once be applied in every day practice.

As I understand the province of medical journalism, such is its aim, its object, to gather up the facts from the four corners of the earth—the condensed, practical, scientific progress, which is being made by the rapidly advancing strides of our great profession in all of its various departments throughout Christendom.—*Cincinnati Lancet.*

ART. IX.—*How do the Spermatozoa enter the Uterus?*

After a careful review of the various opinions on this subject, Dr. Beck of Fort Wayne, Indiana, presents the following observations as affording the most rational answer yet suggested to the question of the mode of ingress to the uterus of the spermatic fluid:

"August 7, 1872.—Mrs. H. L., aged thirty-two years, of strongly-marked nervous temperament, blonde, married eight years, has one living child, son, seven years old, has had one abortion, last pregnancy was six years ago, commenced to menstruate at fourteen years of age; present illness has existed six years, dating evenly with abortion; symptoms which have been apparent during its course were dragging and weight in pelvis, more or less pain in back and loins, slight vesical and rectal irritation, inability to walk without great fatigue, inability to lift weight of any moment, slight leucorrhœa, and a sinking sensation referred to the epigastric region—supposed the cause to be a 'falling of the womb'; present condition as regards menstruation, menstruates regularly every twenty-eight days, normal as to amount, and suffers no pain of any moment, leucorrhœa very slight as to amount exists all the time, is white, glairy, and unmistakably uterine, pain is intermittent by no means severe, and is referred to the back, loins, inguinal and sacral regions; locomotion is impeded to a great extent by the consequent fatigue; as to other symptoms, she is usually constipated, and has a copious eruption of acne upon the face: of physical signs, the touch shows the os uteri just inside the vulvæ, the speculum was not used, the probe shows the pelvic-uterine axis to be changed considerably, but no flexion of uterus, and probe enters cavity two and one half inches: Diagnosis, prolapse of the uterus in the second stage; treatment, mechanical support to the uterus by means of McIntosh's stem pessary, and internally ferruginous tonics, iodide of potassium, and liq. potass. arsenit. This much for the history of the case, as compiled from an office examination.

Calling at the residence of the patient next day for the purpose of adjusting the uterine supporter, I made an examination by the touch and, upon introducing my finger between the pubic arch and the anterior lip of the prolapsed cervix, I was requested by her to be very careful in manipulating those parts, as she was very prone, by reason of her passionate nature, to have the sexual orgasm produced by very slight contact of the finger. Indeed, she stated that

this had more than once occurred to her, when making digital investigation of herself. Here then, was an opportunity never before afforded any one to my knowledge, and one not to be lost upon any consideration. Carefully separating the vulvæ, with my left hand, so that the os uteri was brought clearly into view in a strong light, I swept the right forefinger across the cervix twice or three times when, almost immediately, the orgasm occurred, and the following is what was presented to my view:

The os and cervix uteri had been firm, hard, and generally in a normal condition with the os closed so as not to admit the uterine probe without difficulty; but immediately the os opened to the extent of fully an inch, made five or six successive gasps drawing the external os into the cervix each time powerfully, and at the same time becoming quite soft to the touch. All these phenomena occurred within the space of twelve seconds time certainly, and in an instant all was as before; the os had closed, the cervix hardened, and the relation of the parts had become as before the orgasm.

Now I carefully questioned my patient as to the nature of the sensations experienced by her at the period of excitement, and she is very positive that they were the same in *quality* as they ever were during coition, even before the occurrence of the prolapse; but admits that they were not exactly the same in *quantity*, believing that during coition the orgasm had *lasted longer*, although not at all or in any respect different as to sensation. I had almost forgotton to make mention of the intense congestion of the parts during the "crisis," and introduce the statement here.

When, in connection with the statement of the patient, who is a very intelligent and appreciative lady, I add my own observation to the effect that there was no inflammation of any kind present either in the os or cervix uteri, the vagina, bladder, or rectum, and that the parts were in an entirely normal condition except as to position, I think we had the phenomena before us which are always present during coition; and the passage of the spermatic fluid into the uterus was explained fully, satisfactorily, and beyond the shadow of a doubt.

I do not doubt that many of my readers have seen in streams of water, sometime during their lives, a species of fish known as the "sucker" which has a very peculiar shaped mouth. These fish when at rest in the water, pass the water through their mouths and out at their gills as all other fish do but, in doing so, they make a peculiar suction motion with their mouths in which, the mouth is inverted into itself. Precisely such a motion does the uterus make

during the period of sexual excitement. This is a homely illustration I am aware, but I know of none other in Nature which answers so well.

This then, is the explanation of the passage of the spermatozoa to their destination: the act of coition arouses some special nervous action in the uterus which causes it to act in the manner above described, when the "crisis" arrives. I do not believe that the operation is either purely physical, or simply mechanical, but feel sure that the great nerve-centres have more or less the control of the matter, although perhaps, this is not now demonstrable.

It had been my intention to have discussed the bearing of the facts here presented upon sterility, as due to a malposition of the os, and its consequent inability to take upon itself the necessary action; but find that this subject has grown to such magnitude in this paper, that policy suggests that it be postponed to a future time. The views presented in connection with these facts are of course in a crude condition as yet, and will bear discussion and further observation; but I feel sure that the facts stand for something, and that they offer to the profession *the first and only reasonable answer* to the question of "How do the spermatozoa enter the uterus?"—*St. Louis Med. and Sur. Journal.*

ART. X.—*Tannin Packing in Prolapsus Uteri, etc.*

Dr. G. P. Hachenberg, of Rochester, N. Y., has found the free application of tannin very efficacious in relaxations of the uterine, vaginal and other tissues. He says: "For many years I have treated prolapsus uteri by packing tannin around the mouth and neck of the womb. When surgeon in charge of the U. S. Hospital at Fort Randall, D. T., a laundress of the institution was much troubled with chronic prolapsus uteri. She had worn a pessary for many years. I removed the instrument, and treated her with success by tannin packing. The application usually was made in the morning of the day when she was to do a heavy day's washing. This poor woman said, after making an application: 'after you put that medicine in I fell well and strong; I feel as if I had no womb.' Since that time, I have treated with uniform success many lady patients who were subject to prolapsus uteri. As I have hardly failed to control the most obstinate case of prolapsus by this treatment,

I discard the use of the pessary. The packing is likewise indicated in some cases of displacement of the uterus—indeed in all, when complicated with prolapsus. As a remedy for leucorrhœa, where the seat of the inflammation is at the mouth of the womb or within the vagina, it usually gives prompt relief. A few months ago a lady consulted me for a chronic ulceration of the rectum, located within two inches of the sphincter. So sensitive were the affected parts, that almost any local application caused pain and unpleasant constitutional effects. For weeks I treated the case with an injection composed of tannin, glycerine and black wash, with some benefit. Finally, I resorted to tannin packing into the rectum once a week. In a month the discharge of pus and saneous matter ceased, and the patient rapidly improved.—*Med. Record.*

Ophthalmology and Otology.

ART. XI.—*Souvenirs of the Ophthalmological Congress of London.* By DR. WARLOMONT. FOURTH SESSION, 1872.

(Translated from the Annales D'Oculistique of July and August, 1872.)

[Continued from page 674.]

The farewell banquet took place at 7 o'clock, in the Crystal Palace, Sydenham. About one hundred guests, including ladies, were present. The table was placed in a magnificent hall admirably lighted and ventilated, where, thanks to the careful superintendence of Mr. Soelberg Wells, the felicitous organizer of the *fete*, a sumptuous repast was served.

At the dessert, Mr. Warlomot, Vice-President, offered the following toast: *To the President of the Congress.*

GENTLEMEN—Nearly two years ago—for we are only removed by two months from that memorable anniversary—the first Ophthalmological Congress met at Brussels. That assemblage was brilliant and large; more than one among you, perhaps, still fondly cherishes a pleasant recollection, and he who addresses you now, was one of those upon whom devolved the honor of welcoming you.

Our debut was received with sinister predictions. They refused to believe in the possibility of success in our undertaking. We had no doubts, for we knew, to our own conviction, what can be expected from your devotion to science and noble disinterestedness. Nearly two hundred ophthalmologists from every point of the globe—who, but for this homely occasion, were probably destined never to meet each other—came to group around you, living there during eight days in the closest bonds of common tendencies and sentiments; and when it was time to separate we have seen them sincerely grasping each other's hands in proof of warm and loyal fraternity.

Happily, gentlemen, that was not a farewell! We were again to meet. And since, in our wanderings in foreign lands, to how many of us has it not happened finding himself lost in some distant city, to be in quest of a friendly face?

One has been saved in finding one of ourselves; hand clasped hand, one felt that one was not alone, because we have, in a sort of tacit and intuitive conventionality, created to our profit, and in the entire world, the free-masonry of hospitality.

Other spirits, styling themselves practical, had, indeed, wished to believe in the possibility of our association. But what was science to profit thereby? Are nor all congressional assemblages sterile. Why should ours escape this common fate? Well, scarcely had we separated, when innumerable publications relative to the oculistic science, some fugitive, others periodical, appeared from every quarter; an indescribable emulation had fired every mind; none would remain inferior to his neighbor of yesterday whom he had seen one day sitting by his side; and from this generous impulsion had arisen a progressive scientific prosperity, unprecedented in the history of human knowledge.

"But do you not see," they would say, "that all your efforts will only end bringing out some of those mediocres eager of notoriety and fame, even now ready, doubtless, to make a pedestal of the stones which you are industriously bringing up to the common edifice."

And what does this signify to us? Do we not know that true merit always understands, at its time, to make for itself a brilliant opening, and out of these hollow vanities, to create a glorious setting off?

Who among you, gentlemen, having attended our first and laborious sessions, has been able to forget the incident which has marked them with a most dazzling impression? For myself, I can yet see from here, this young man of pale

features, with expressive and captivating physiognomy, mounting modestly, and at the reiterated request of the assembly, the steps of our rostrum.

I hear his sympathetic voice, in that imaginative and picturesque language, of which he alone held the secret, discoursing the succinct and lucid report of one of the greatest discoveries due to the genius of man in the field of medical sciences, and the echoes of the applause which welcomed him still lingering in my ear.

Albert de Graefe—Let us salute this noble figure in passing. Albert de Graefe had just placed his powerful hand upon a domain, which no one would be able to dispute him.

Ophthalmalogy recognized in him its future standard bearer, he who was already diffusing to an astonished world the rays of his benevolent and active spirit, opening to our dear specialty, new and unexpected views, which only the dark curtain of death could and alas! did prematurely, limit its boundless horizons.

To those who would still question our vitality, we confine ourselves in calling to their minds to our presence in this place. We are, gentlemen, in the capital of old England, which accepts neither sham glories nor crack-brained institutions.

Our sittings take place within a space, where, since long years, resound the voices of the most illustrious *savants* who honor our art, and the hospitality which is here offered to you, under the patronage of the eminent masters, who, in this solemn occasion, have opened their arms so cordially to us, affords us the measure of the estimation in which they hold you.

May they permit me to address to them, in the name of their foreign colleagues, whose interpreter I have the pleasure of being here, the assurance of our most profound feelings of gratitude.

Thus, gentlemen, the level of ophthalmological knowledge being sensibly raised, its rapid diffusion throughout the earth henceforth assured, and over all this holy brotherhood sealed in 1857, making our force and our pride, as it produces the joy of our souls, bound closer and incessantly reinvigorated. Such are the results which you owe to your organization and assiduity, of which you have the right to be proud without reserve, for it is by spreading over them the torrents of light, that you have succeeded in confounding the obscure detractors of our legitimate hopes, and of our imperishable future.

Imperishable in effect, gentlemen, because if, what may

God forbid, we should extinguish ourselves in this world, have you not resolved this morning, that in four years, we will meet again in another!

A day did come, a day forever to be cursed, and our edifice seemed shaken in its very foundations, we learned that our unfortunate colleague, who had up to that time, inspired our debates, had disappeared from this world.

But we have strengthened ourselves in time—may his great shadow pardon us!—with the reflection that as there are no *useless* men, neither are there *indispensable* men, and the direction given to our late efforts, comes to prove once more, this eternal truth! Our helm has been entrusted to hands brave and authorized, which have known how to preserve our craft from shoals and tempests.

Let us rejoice, gentlemen, quaffing to the health of our pilot: To Professor Donders—To the President of the Fourth Session of the Periodical International Congress of Ophthalmology. [Applause.]

A toast was then offered by Mr. Critchett, President of the Organization Committee, to Professor Bowman, to the illustrious savant who carries high and firm the flag of ophthalmology in England; to the *confrère* so excellent and devoted, who, during my career already long, has incessantly seconded my efforts, encouraged my works, and expedited those labors which have brought me to my present position, and to whom, as a duty and with sincere pleasure, I now address the expression of my undivided gratitude. [Applause.]

Several other guests—Messrs. Williams, Delgado, Agnew, Carreras, Noyes—spoke in turn, and Mr. Critchett gave a last toast.

To Mr. Warlomont—To him who was the first in propounding and realizing the idea of the Ophthalmological Congress.

They retired at 11 o'clock P. M.

We will now speak of the *Extra Official* part of the Congress.

A proposition, intended to be submitted to the Board for discussion, had been drawn up and signed by a great many members.

Here is the text and its developments:

GENTLEMEN:—The proposed regulations which the Standing Committee of the Paris Congress submitted to you in 1862, and on which you were called to act, contained the following provisions:

"ART. 4th. The society will only admit members against

whose professional honor no proven cause of complaint shall have been preferred.

"ART. 5. Candidates are admissible by presenting their diploma or scientific title, provided three members shall not require a secret ballot, or one member demand an inquiry into the qualifications of the candidate, or the expulsion of a member, by assuming the responsibility of proving the charge so preferred."

These two articles were repealed by the general assembly, and replaced by the following:

"ART. 4. Candidates shall be admitted by the presentation of the diploma or scientific title, provided ten members shall not require a secret ballot on their admissibility."

This provision in the regulations affords us, indeed, the power of refusing the admission of a new candidate who shall not have the required qualifications, but we are left disarmed against such members who should be convicted of engaging in practices contrary to professional dignity.

This is insufficient. We ask the association to obviate this insufficiency, by adding to Article IV the following paragraph:

"It is moreover enacted that a secret ballot may be held for the exclusion of a member by a demand, signed by at least ten members. The habitual exercise of ambulatory practice, is a cause for exclusion."

This proposition was developed as follows:

In the estimation of the world, oculists have not always been classed as they are to-day. At present, at the top of the scale under a scientific point of view, they did occupy only lately an inferior degree, and this was their proper place.

One could see them then going from village to village, from suburb to suburb, haranguing in the public places, always proclaiming their extravagant pretensions.

Thanks to heaven this pitiable class has disappeared, but the tradition of the traveling oculist is not yet extinguished, and we do hesitate of admitting that we owe to the conduct of those who have not broken off the shameful record, to find ourselves from a professional standpoint, less high in position than we should be.

We still see, even now, practitioners, some of whom occupy lofty and lucrative positions, repair periodically to places distant from their residences, and even to make trips to foreign countries, there to dispute with their fellow professionals who are often more meritorious than they, the practice which supports them.

By going to seek patients abroad instead of discreetly

awaiting them in their offices; by thus doing that which no honorable practitioner exercising any other branch of the medical sciences would permit himself, without losing his dignity; by producing, with the assistance of proceedings more or less indelicate, a boisterous notoriety, which suffices to satisfy that public which only demands to be dazzled, then duped under the domain of *confrères*, often at the beginning of a career for the success, in which they must have—firstly—self-respect, these oculists lower the profession and its practitioners; by thus wounding respectable interests and legitimate pride, they ruin under the influences of their obtrusive practice, that very confraternity which we should place higher than all possessions, because it assures us our self-respect, that fountain of every happiness, whilst it guarantees the consideration of those who surround us.

It is pertinent to this Congress—nay, it even is incumbent, perhaps, upon it—to invite those who belonging to it, still persist to engage in those sad practices of the past age, to renounce the same at once. The adoption of the provision that we propose to add to the regulation, would operate as a sufficient warning, and its application could be made at the next session on those who should have disregarded it.

But, before proceeding further with this proposition, the originators and partisans of its adoption, wished to become satisfied of the reception it would meet in the Congress, and consequently consulted such of its members whose opinion was considered of most weight.

The result of this consultation was not favorable to this plan.

The intervention of the association in such matters was, said they, at once useless and ineffective. Useless because those whom it concerns—not all, unhappily—spontaneously justified themselves by not appearing before their *confrères*—inefficacious, because those who did not recede from a practice stigmatized by all honorable gentlemen, did not concern themselves with a blame which might strike at them, but did not *reach* them.

It was, moreover, attaching too much importance to a few of those rare exceptions, incapable of themselves to dishonor our noble profession, whatever they might do, and contempt alone should punish them.

This reasoning prevailed, and the proposition was not adopted.

Many have regretted it, and argue in the following manner:

"As expressed in the statement of causes, the ambulatory practice is the opprobium of our specialty. They are seen

presenting themselves with effrontery every where. Honor and talents do not place a person above its attacks. You live peacefully and honorably by your work; your skill has slowly—because you have confined yourself to it—made for you a position of competency; advertisement is odious and you would rather die than call it to your aid; your future is assured." Undeceive yourselves!

"A stranger comes, who by advertisements attracts public attention. He comes to deliver this benighted public from the grasp of ignorance in which it is held; he alone is the representative of this school or that system, the others *know nothing*. This is the formula: Come all—to hear him—and the people flock, and his thing is accomplished.

"You, practitioners of the place thus suddenly invaded, have to perform an important operation to-morrow; but your patient has heard the drum beaten and responds to it."

He goes (what does he think?) to obtain the confirmation of the proclamation! The intruder is adroit. "You are to be operated to-morrow," says he, "it is too soon, it is well to wait a little; undergo a treatment of several days, under my care, and perhaps you will avoid the operation. Come to my clinique." The patient goes, and scarcely arrives when he is operated, and you are robbed—this maneuver repeats itself periodically. What arm can resist such attacks?

You scorn the struggle, which would be unequal, because you are honorable and delicate. There remains nothing for you but to suffer, in your pride and in your interest. But who does not realize the bitterness that such a state of things must engender? Who does not feel the rancor that must spring out, and which smothers fatally and without relief, all confraternity.

No, you shall not be of our number. You who thus violate all healthy traditions, you dishonor our name of oculist, which we should be proud of bearing, because we share it with the Critchetts, the Bowmans, the Testelins, and the Giraud-Tenlon, and we blush to fill the place where you have rendered vile. No, you must not be, and you are no longer, one of ours!

The Congress has not yet banished you, but it has remanded you up to your own conscience, and if you have one still, you will understand.

What then authorizes, or even encourages you to engage in this professional piracy?

You say you are the representatives of such a school outside of which there is no health? But who do you hope thus to deceive?

Those limiting obstructions, which progress causes to vanish every day before the products of industry and com-

merce, have they been allowed to exist only for the intelligent. And any such innovation accomplished yesterday in St. Petersburg, New York, or Berlin, shall it find any barrier opposing itself to that which, carried by every wind of heaven, will arrive to-morrow in the remotest part of the globe? Does publicity cause any damage to it? And if nothing of this is true, what becomes of your monopoly and of your school? No, there is to-day in ophthalmology only one school: that is that of learning.

A practitioner, no matter where he may have been born and reared, may and can know as much as he who has been raised under the protecting wing of the greatest of genius. Indeed, he has greater chance, by embracing an intelligent eclecticism, than by being wedded to this or that exclusive system, to live in the way of the good and healthy practice.

Have you then acquired, in the corner of the earth where you have made your first attempts, the notoriety which talents give, and on which you depend to wage a fratricidal war? Ah, if it were so, why then would you go far, to the conquest of a prize which would not fail you at home, if you were honored there?

Why, then, those periodical apparitions in a conquered field, if you did not feel that all your knowledge, real or fictitious, does not keep its prestige, excepting on condition that you recall it effrontingly, to epochs sufficiently far away, that the public attention shall not have the time to be attracted from your miserable personalties?

No, this is not honorable practice. This is a chase after the patient where the game is sure, because no rival, jealous of his own self-respect, will not think of disputing it at such a price.

You may say science is cosmopolitan, it should be free everywhere. Yes, doubtless. Hunting also, is free, on condition of carrying arms. For the practice of medicine, the outfit of arms is the diploma. Have you it, this valid diploma, you who ordinarily only practice in foreign countries, thanks to a license obtained very often, through the favor of a generous legislation, from a complacent minister? And if you have it not, what are you but poachers?

And the public? What guarantee does it find in the confidence with which it favors you? Will it be better treated, better attended? Enough! You are money-making men, all means are licit in your estimation, your clients of one day, are but people levied upon at your mercy, whom you will abandon when you shall have extorted all that you can from them, and who returning to their homes, operated, mutilated, and despoiled, will no longer find that solacing care which is so essential, and which you will not render,

because your play being made, and your purse being full, what can the rest signify to you?

We have unhesitatingly repeated these complaints and these regrets. But it is, in a great measure, because we have returned from London, where we have inhaled to the full capacity of our lungs, that atmosphere of professional honor which no impure blast has ever vitiated. Impregnated with its perfume, we are the more susceptible to the disgusting sight of that neighborhood of gigantic notices, this advertisement in a thousand forms which surround us, and which covers us with shame, for we feel that we still require much time to attain that degree of purity which our English neighbors have long ago reached by a dignified and respected position, and by the aid of which it can henceforth challenge foreign invasions.

As we have before stated, Congress was not confined to the hall of sessions.

This only lasted three days, but during the week preceding the opening, many foreign oculists attended the special clinics conducted by their skillful London colleagues, engaging in prolonged and profitable conferences.

It would be difficult to say how many operations were practiced during the ten days that we were permitted to attend, each one of which afforded instruction. We will attempt a few words on this subject hastily.

Anæsthesia is very much in favor in the ophthalmological hospitals of London. It is used for nearly all patients who must pass under the knife, or even the needle of the surgeon, and it is applied with boldness up to complete unconsciousness. Does this complete unconsciousness give to the ear with the general repose an intrinsic and special passiveness?

It is very probable, for we have never seen eyes handled with such perfect impunity.

We witnessed many extractions by various operators, following diverse processes, and in no instance, even under circumstances where accident seemed inevitable, did we discover the slightest loss of vitreous humor.

Skill in the operator, but perhaps also, some other influence. Here is an important question for elucidation.

About the process employed in the operation of extracting the cataract on which we interrogated the English oculists, we obtained the same answer a thousand times repeated elsewhere.

"We operate by Graefe's method, but we have modified it to such a degree, that the classical peripherical method is no longer entirely respected."

[TO BE CONTINUED.]

Editorial.

In the first number of the LANCET commencing with this year, we published an article on what we believed to be "*The only practical means of limiting the spread of venereal disease,*" to accomplish which sanitary end, we suggested measures some original, some tested by experience, and which when put into operation, would surely bear with restraining power on the "social evil question," thus achieving another benefit. At that time a bill was pending before the Legislature, and we hoped to contribute our mite toward the accomplishment of what was believed by us to be for the sanitary, as well as moral, good of a large class of our population.

We suggested as a means of prevention of the diseases under discussion. *First*, registration in order to gain access to the afflicted; *Second*, medical examination in order to recognize at the earliest stage any developing seeds of the most loathsome disease with which we have to deal; *Third*, quarantine or isolation to prevent the spread of an infection eminently contagious, as is universally practised with other plagues, and to enable our profession to study more minutely and under the most favorable clinical auspices a disease which, for years has baffled it, and by means of which study, greater benefits would accrue to the multitudes yet to suffer, innocent or guilty; *Fourth*, the exactment of a license and examining fee from those to be benefited by the enforcement of the law, in order that the expenses of whatever kind resulting from the luxury, might be defrayed by the participators of it, instead of being a heavy burden on the community at large, as at present; and, *Fifthly*, we considered that the operations of the law would tend to diminish, not entirely suppress prostitution, and thus indirectly aid us in our sanitary work.

The opinions we held in January, we hold in December greatly strengthened.

We believe that we hold them in common with any medi-

cal man who has been able to lift his ideas above the fact that people will copulate, some before marriage, and others outside of the marriage bed, that a disease almost necessarily results, and that merely closing one's eyes in its presence does not remove it, or prevent new cases, and that the fact that it is the result of sin, and might be considered as retributive justice, does not absolve us from our duty to attempt its cure and eradication, or free innocent posterity from its liability to be visited with the sins of its fathers.

Far from imagining that we can suggest the best means for preventing the spread of venereal disease, or restraining prostitution, still farther from condemning those who honestly differ from us *after attempting a solution* of the question, we only offered our suggestions embodying the result of a not limited experience with venereal disease, and our observations as to the working of a restraining law over a by no means small number of people, and in different countries. We have no respect though, for those wonderfully upright specimens of humanity, whose natures are too sensitive to allow them to descend to the common every-day vices around us who, because they have always thought *one way* are too fossilized or rusty to imbibe new ideas the result of modern investigation, and who complacently praise God that "I am not as other men are," while not hesitating to pocket the fee from a venereal sufferer, the victim of "retributive justice," earnestly hoping that the other participant in the crime may come in also for treatment.

As we expected, the proposed bill was violently attacked, and its authors and aiders discourteously treated by those from whom they should have had support. The language used in condemnation of professional men, the equals in experience, earnestness and honesty of the authors of the libels, was at times disgraceful and false. The bill failed, but we hope to see it again brought up. The LANCET is the friend of any measure that will tend to assist the unfortunate. One great objection to adopting any system of registration in the United States was, that it was a European vice, and if calculated for foreigners, was totally unsuited for Americans. We had at that time no need to go beyond

Sanger's "History of Prostitution" to prove the absolute necessity for a restraining law here, but now we have convincing proof from an American experiment but in its infancy when the previous article was written, now grown mature after twenty months of close observation and rigid enactment. We refer to the St. Louis experiment. In addition to the voice of the Mayor of that city, as quoted in our Oct. issue, we have before us the "Eleventh Annual Report of the Board of Police Commissioners of the City of St. Louis, for the Year ending 31st March, 1872," and which includes the very complete and able report of the Chief of Police of that city. From this pamphlet we propose to quote freely to convince any person capable of reason that in an American city, American laws can regulate satisfactorily American prostitutes, and cause a marked diminution of the venereal disease in American citizens.

The original act intended to judiciously control and "lead to the repression, diminution and ultimate extinction" of this particular vice, was passed in July, 1870; it was amended in July, '71, and the report before us comprises a period of twenty months. The act provides for the complete registration of every woman known to be a "bawd, courtezan or prostitute," as well as of the persons keeping or *owning* the houses used for purposes of prostitution (sec. 1.) It also requires every private or kept woman occupying private rooms to be regarded as a brothel keeper and to pay the "hospital dues" of ten dollars per month as well as the examining fee of one dollar per week (sec. 3). Public women are forbidden, under heavy penalty, to "ply their avocation" in public; nor can they rent or inhabit any building without first having obtained permission from the Police Board. The act also provides for the erection of a suitable hospital for female venereal patients, by the collection of the following dues, viz: ten dollars per month from each brothel keeper, and one dollar and a half per week from each courtezan as hospital dues, together with a fee of one dollar per week from the proprietor as an examination fee. The funds thus raised to be devoted solely to paying the expenses incurred by the operation of the act and to the

erection and support of the above hospital, which is intended also to be a house of reformation (not penal), and its government and management to be in the hands of the Board of Health (secs. 7, 8, 9). The next sections provide for the appointment of medical examiners, who shall have power to examine and inspect all registered houses and occupants once or oftener each week, to grant certificates, send to hospital, order arrests when disobeyed, treat diseases, etc., for which they shall receive a monthly salary to be determined by the Board of Health, and they are forbidden to *receive any other pay or emoluments*, or to employ a substitute. Sec. 17 prohibits any courtezan from changing her residence to any other part of the city, without permission previously obtained, and *after* showing her card for the week with a certificate of good health. Secs. 22 and 23 provide for the removal of names from the register in case of reform, well established, and prevent the removal of the registered from the city without permission from the Board.

We have thus hastily mentioned the prominent sections in the act; the others provide for punishing as misdemeanors violations of its provisions, etc.

Now to turn to the able report of Capt. McDonough, we quote:

"Total registration of bawds by the police since the social evil law has been in force:

White bawds	1,766
Colored "	286
	2,052

NATIONALITIES.

United States—White	1,378
" " Colored	286
Germany	139
Ireland	122
Canada and England	86
Scotland	12
Other foreign	29
	2,052"

Next follows the statement of the registration on March 31, 1872, viz:

"White bawds	552
Colored "	151
	703

NATIONALITIES.

United States—White	393
" " Colored	151
Others, foreign	159
	703

Total number of removal permits issued during the year was 5,622."

The Chief notices a marked diminution in the number of women registered in single rooms, the decrease being 97.5 per cent. in one year, but he is aware that there are many evasions of the law, and that all are not registered.

"From the 25th of July, 1870, to the 31st of March, 1872, the period that it (the law) has been in force, 2,052 bawds have been registered by this department. From the 25th of July, 1870, to the 31st of March, 1871, the date of closing my last report, 1,284 were registered; since that date, up to the 31st of March, 1872, when the records of this year closed, the registration amounted to 703, or 581 less than the actual registration of 1871. A decrease of over 45 per cent. in 12 months."

This reduction is, in a measure, accounted for by the fact that a large number of names of prostitutes have been stricken from the register. The Board of Health, on the advice of the medical examiner, having that power in cases in which an unmistakable desire to reform is manifested. The Chief recommends that this power be vested in the Police Commissioners rather, as experience has shown that the police can better judge of the genuineness of the intended reform. We again quote:

"I will recapitulate a few of the moral effects produced by the St. Louis social evil law in this city, which, in my opinion, far outweigh any moral objections which have been or can be alleged against it.

1. By this report it is shown conclusively that the number of public women have uniformly decreased each year.

2. That they are more decorous in their manner in public.

3. That the plying of their wicked trade upon the public streets has been almost entirely discontinued.

4. That a considerable number of abandoned women have been reclaimed and restored to respectable life and, in several cases, married.

5. That clandestine, or private prostitution, which often develops into open vice, has been materially checked, through fear of the legal consequences of such indulgence, when brought home to the offender.

6. That juvenile prostitution has been greatly diminished, if not wholly removed. * * * That the results have so far been encouraging, is beyond doubt.

"The most enthusiastic promoters of the measure could not have hoped for a larger or more beneficent success than has attended its workings during the two years in which it has been in force. * * * The young and the heedless have been warned by the police of the consequences of entering a life of shame. The number of bawds has largely decreased, and the deaths, formerly very numerous, in con sequence of diseases concomitant on a life of shame have, in a great measure, been prevented."

Now the Chief touches the point, in our estimation, which explains *why* the marked decrease in crime can be noticed. The italics are ours.

"Under the law, this evil has been removed, as it were, from the exclusive domain of the *moralist* and intrusted to *practical heads* and *practical hands* to give it shape and form, in order that, if possible, some good might result from a vice so stupendous and so mischievous; one which has existed and flourished in all nations and all countries from the time whereof the 'memory of man runneth not to the contrary.' St. Louis alone, on this continent, has grappled with the monster; and while it is not claimed that the authorities have suppressed it, or even expected to do so, nevertheless by the intervention of the strong arm of the *law* and strict *police surveillance*, it has been stripped of some of its worst features, and great reductions have been made in the ranks of its votaries, as you may observe from the records of this office, and which are a part of this report.

"These are cheering results that call for sincere congratulations from every lover of his race. The bold fact stands before the world, attested by abundant and conclusive evidence, that the supervision of this evil by the police does *not* tend to strengthen or confirm it, but to *deprive* it of its *principal terrors*, and by wise and judicious action, to

lead its victims to the paths of rectitude and right, and to their ultimate restoration to society."

It is the placing in *practical* hands any important radical measure that determines whether success shall follow its introduction. It will not tend to reform a prostitute to hear a Pharasaical brother pray in her presence—"I thank thee that I am not as other men (or women) are"—or to have an exceedingly virtuous sister turn up her nose at the sight of one on the street, or to visit a Magdalen Asylum, distribute tracts and tell the fallen to be honest and virtuous, when no attempt is made to *assist* in the effort.

The Chief now alludes to the Hospital provided for by the act. He says that in accordance with its provisions, there has been collected from each keeper of a bawdy house the sum of fourteen dollars per month, and six dollars from each of its inmates, and a sufficient sum has been raised to relieve the distresses and provide for the welfare of each of the unfortunates.

"It is estimated that not less than eighty thousand ($80,000) dollars have been received in this manner. Deducting from this amount the sum of the expenses incurred in carrying out the provisions of the ordinance, there remains on hand, 31st March, '72, a balance of nearly forty-five thousand ($45,000) dollars."

After speaking of the "Industrial Home" contemplated in the act for the reformation of the women, the report concludes:

"In the effort to deprive the social evil of its most unsightly and revolting features, St. Louis has taken the initiative, and there is every reason to hope that her labors in that direction will be speedily brought to a successful and triumphant issue."

To repeat again the figures for the year, we have:

Percentage of decrease this year.....	45
Total number of removal permits issued.....	5622
" " " permits granted to change residence.	1874

We call attention to the enormous number of removal permits issued, which shows how distasteful to the worst cases were the operations of the law, and how they were

obliged to go to other cities for more freedom. If other localities had the same law, what reflecting mind could fail to see the result? As the Hospital was not completed at the date of the report, we quote from a letter dated 18th Nov., from Chief McDonough:

"The Social Evil Hospital and House of Industry referred to in the report, is now in process of completion, and will comfortably accommodate one hundred and fifty patients when finished, in January next; thus far, forty thousand dollars ($40,000) have been expended on the property for the comfort of the fallen women who have monthly contributed to the *fund* now so generously being expended for their medical, social and spiritual treatment; suffice to say, that much good has resulted from our present system, and since the founding of a permanent home every success is promised for the future."

Now, we think the above quotations do conclusively prove that in the American city of St. Louis, having in a population of 2,052 prostitutes, 1,664 claiming to be born in the United States of America, an American law has so regulated their conduct and health that in twenty months the population has decreased to 703 in their ranks, leaving but 544 American women to disease American citizens, and all this in spite of the solemn assertion by one of our exchanges that "the movement (social evil law) belongs to the effete and vicious code of the old world," and a host of other equally absurd and false declarations.

We think it strange that the Board of Health does not enlarge on this subject, it being entirely under its cognizance. It may be that the ruling power in the Board is some enemy of the system, for the only allusion we find in its report is by Dr. Barrett, Health Officer, who states:

"As an indication of the beneficial influence of the social evil regulations, it may be stated that in 1870 thirty persons died of syphilis, while in the year just passed, only nine persons died of that disease, which is a decrease of over two thirds of the mortality from that cause."

Of course, all of the cases of venereal are not included in the above figures, nor can we suppose the deaths to be all enumerated. It is sufficient to say that *there is a decrease*, and as no cause is known by means of which the decrease

can be accounted for in such a satisfactory manner as by the operations of the law, the presumption is strongly in favor of the law having caused it.

Now, the argument will be employed that the report so extensively quoted, in this article, *proves* nothing because written by a layman, etc. That is just why we have used it as the strongest proof possible. It was asserted by us, in our article on the "Prevention of Venereal Diseases," that to exercise a sanitary supervision over those liable to contract the disease under discussion, would have the effect to restrain and control, if not suppress prostitution, and thus in accomplishing a sanitary, we might possibly achieve a moral, good. On the other hand, the supporters of the Holland Social Evil bill last winter, claimed that to regulate and control prostitution by police surveillance, would also greatly assist in lessening the disease arising from the vice. Thus each argument is sustained by the carefully prepared and authentic report of the officials under whose supervision the first attempt has been made in our country, and whose work has been so successful that we have no fear of its being abandoned. It was the placing the matter in the hands of *practical* men that gave it the hope of success.

Philanthropists (so-called) and enthusiasts would have stood idly by and *wished* it good; moralists (self-styled) would have prayed, if possible, to dodge the question—to not be defiled by it; impractical workers would have hoped the cause success, and suggested to *others* how to act; but *men* faced the evil and demonstrated the feasibility of managing what they could not suppress, and mitigating an evil they could not avert.

We have no desire to touch the social evil question but in our efforts to prevent disease; we would escape it if possible and leave it to moralists, but it is so intimately associated with a large and important class of diseases that it is simply impossible to study them, particularly in a prophylactic or hygienic point of view, and not be brought into collision with it. We therefore consider it our duty as human beings, as professional men, as citizens and as journalists, to war against the weak-kneed, the feeble-

hearted, who would quietly stand and see the enemy approach without daring to resist. Yes, they do resist to a certain degree, they pocket the fees they can get from the unfortunates who are diseased, and thank God that they are not "as other men are!" As we advocate quarantine, Boards of Health, the collection of statistical data and spread of science generally, so we also devote the LANCET to the advocacy of social evil laws, to the end that we may have less venereal disease and better facilities for studying the little we may have.

Let us hope that the supporters of the bill last winter will not fail in bringing forward their good measure again when our Legislature meets. It is a noble cause, and merits the success it will have when properly presented to the people who do not understand its merits, and who are now misled by the statements, false in every particular, of those who declare its advocates to be only those "broken down libertines" and "reckless married men," "Americans who have been in Europe," the "dissolute," etc., while "every virtuous mind is against it." Such a statement is an insult to the medical profession, and to every layman who sees the evil and dares grapple with it.

Editorial Resume.

The LANCET, with this issue, completes the first year of its existence, and its record is before the public. We do not propose to review our work to see if our promises made in the first number have been carried out, for we consider that with each number we have demonstrated that fact.

Entering on our labors with distrust, fearing that any attempt to carry on an independent professional journal in a place so infested by cliques, would prove a failure, aware of our inexperience, and that the prestige of a name made celebrated by professional success was not ours; not fully appreciating the magnitude of the task assumed, the errors

and mishaps of the first few months were magnified into almost insuperable difficulties from which there seemed no hope of escape.

The disappointment sure to be experienced by any tyros in such an undertaking we had, but for a short time only. Subscribers by their promptness encouraged our undertaking, and many correspondents, with their pens, gave us the certainty of success.

It was soon demonstrated that the profession would appreciate originality in correspondence, frankness in expression, independence in conduct and thought, and liberality in dealing, when put forth in an attractive form with clear type, on good paper, and abundantly illustrated, if necessary. We have, of course, committed errors, but mostly we think, errors of omission rather than those of commission. If a wrong has been done, it was unintentional, and is so far unknown to us, that now we can regret only our carelessness in omitting many clearly pointed out duties which were neglected, because of our disinclination to unintentionally wound thin-skinned offenders, encouraged to violate the code of ethics our professional decalogue, by the laxity of professional morals in vogue on this coast, an almost necessary result of hasty settlement and cosmopolitan modes of life.

So far from being discouraged at the close of our first year, we take fresh strength, and enter on our second volume with none of the misgivings before held. With an enlarged list of subscribers, additional names of correspondents, different arrangements for printing, to ensure greater promptness in delivery, we renew for 1873, what we promised for the year completed, with the additional help to be derived from experience gained, and from new enlistments from our friends, won by our free and independent course.

Having learned from many sources, that it would give greater satisfaction to see the LANCET on the first of the month named on the title, we have decided to so issue it, but as it is a labor of no small magnitude to make the change, we ask the indulgence of our readers, if we take two or three months to accomplish it.

Returning thanks to our kind friends for past favors, we ask a continuance, promising to endeavor to gratify all where no principle would be violated, and to copiously illustrate as before, when points would be more clearly demonstrated. We point with pleasure to our list of contributors and table of contents printed with this number, and consider that we yield to no other medical monthly in quantity or quality of original matter. We believe, also, that we were the first to introduce regularly, photographic representations of interesting cases or specimens.

Referring therefore to the past, we ask for continued support only so long as we keep our promises, particularly in regard to independence in journalism and freedom from the "entangling alliances" of cliques.

Miscellaneous.

We have taken the following from the *Sacramento Daily Record;* it is of interest to every physician in the State.

The New Law of Registration.

On the first proximo the new law relating to the registration of marriages, births and deaths goes into effect. After that time it will be required of all persons who perform the marriage ceremony to keep a registry of the time, place, the names in full, the place of birth, the age and condition of each party, and whether either party has ever been married before, and whether the party to whom formerly married is living or dead. And all professional attendants in cases of birth will be required to keep a registry of the sex and color of the child, names and residence of parents, and all physicians who attend, clergymen who have officiated, coroners who hold inquests, and sextons who bury deceased persons must keep a registry of the name, age, residence and time of death of such person. All those persons who are required to collate these statistical matters must quarterly file with the County Recorder a certified copy of their register. The recorder must keep separate registers of births, deaths

and marriages, and once every three months transmit to the Secretary of the State Board of Health at Sacramento a certified abstract of such registers upon blanks to be furnished by the Secretary. Dr. T. M. Logan, of this city, who is Secretary of the State Board of Health, has prepared and forwarded to the County Recorders throughout the State the proper blanks. If any have failed to receive them they can be had by application to the Secretary. Public attention is called to the facts herein least any should have forgotten them, and it will be well for those concerned to note that under the law "any person on whom a duty is imposed by the chapter, who fails, or neglects, or refuses to perform the same, is liable to a penalty of $50" for each offense, to be recovered by the District Attorney of the county for the use of the general fund of the county.

"*Eight Children at One Birth.*"

To the Editor of the Philadelphia Medical Times:

Dear Sir: Through the kindness of an Ohio correspondent, I am able forever to set at rest the story with the above heading, which is now going the rounds of the medical press.

Mr. Timothy Bradlee, of Johnston Township, Trumbull County, Ohio, is a well-to-do farmer, democratic politician, and practical joker, often trying his skill even upon his most intimate friends; and, as such men's chickens often come home to roost, some four or five years ago one of his jokes was retorted upon him in the getting up of a hoax that his wife had brought him eight children at a birth, and, to add to the fun, named the boys after noted republican politicians. This story was started in private, by a well-known army general and member of Congress, now deceased, whose name need not be mentioned, in return for a trick played upon himself by "Tim Bradlee," as he is generally called, and was a current report in his own neighborhood where he is well known, until it was finally fully distributed and worn out. It was revived last summer in a Cleveland paper, by another victim, out of revenge; and hence its getting away from a locality where, from the nature of the original story, it told its own tale and deceived no one.—R. P. H.—*Philadelphia Medical Times.*

The following is a complete list of the Committees of the State Medical Society for the year 1873 :

On Practical Medicine, Medical Literature and Hygiene.—Henry Gibbons, Sr., M.D., Chairman ; A. Trafton, M.D., E. T. Barber, M.D., R. M. Lampson, M.D., A. Thorndyke, M. D.

On Surgery.—G. G. Tyrrell, M.D., Chairman ; Jas. Simpson, M.D., E. B. Robertson, M.D., A. B. Mehring, M.D., C. N. Kirkpatrick, M.D.

On Abstetrics.—R. Beverly Cole, M.D., Chairman ; S. Langdorn, M.D., J. P. Reilly, M.D., W. W. Ross, M.D., E. N. Foote, M.D.

On Medical Topography, Meteorology, Endemics and Epidemics.—D. B. Hoffman, M.D., Chairman ; S. B. Brinkerhoff, M.D., O. Harvey, M.D., T. T. Cabanis, M.D., A. G. Soule, M.D,

On Indigenous Botany and the Domestic Adulteration of Drugs.—W. P. Gibbons, M.D., Chairman ; Geo. Hewston, M.D., W. A. Grover, M.D., R. H. Plummer, M.D., A. S. DuBois, M.D.

On Medical Education.—J. P. Whitney, M.D., Chairman; John Le Conte, M.D., J. C. Vanwyck, M.D., W. S. Thorne, M.D., B. Shurtleff, M.D.

On Prize Essays.—A. W. Saxe, M.D., Chairman ; E. Trenor, M.D., J. B. Pigne, Dupuytren, M.D., T. M. Logan, M.D., C. P. Chesley, M.D.

On Arrangements.—J. F. Montgomery, M.D., Chairman; W. R. Cluness, M.D., G. L. Simmons, M.D., J. E. Oatman, M.D., A. B. Nixon, M.D.

On Publication.—T. M. Logan, M.D., Chairman ; W. T. Wythe, M.D., F. W. Todd, M.D., E. M. Curtiss, M. D., F. W. Hatch, M.D.

THE annual report of the Surgeon-General, U. S. A., shows the average sickness per one thousand of mean strength among the *white* troops to be 1,671, and for wounds to be 303. The average number constantly on the sick report during the year, was 51 per 1,000, of which 40 per

cent. were under treatment for disease, and 11 per cent. for wounds or injuries. Among the same troops the deaths were 15 per 1,000; 11 per 1,000 being from disease, and 4 per 1,000 from wounds, accidents, etc. The proportion of deaths to cases treated, was one death to one hundred and thirty cases.

The statistics in regard to *colored* troops, not including white officers, was as follows:

Average sickness per 1,000 of mean strength was 1,409, of which 1,178 per 1,000 was from sickness, and 231 per 1,000 from wounds, accidents, etc. The average number constantly on the sick report during the year, was 41 per 1,000; 31 per 1,000 being those on account of sickness, and 10 per 1,000 from traumatic causes.

The number of deaths was 22 per 1,000; 18 per 1,000 from disease, and 4 per 1,000 from injuries. The proportion of deaths to cases treated was 1 to 65 cases.

The above calculations were based on an average of 24,101 *white*, and 2,494 colored troops.

The work performed in the Record and Pension Division, and that of surgical records, was simply enormous. During the year there were added to the Army Medical Museum, 1,022 specimens, viz:

Surgical Section	171
Medical Section	37
Microscopical Section	680
Anatomical Section	34
Comparative Anatomy Section	100
	1022

The first part of the Medical and Surgical History of the War is completed, and ready for distribution. The library of the Surgeon-General's office contains 19,000 volumes, and 7,000 pamphlets.

We take pleasure in calling attention to the able manner in which the affairs of the Bureau are conducted. It is a credit to the service and the profession, and we sincerely hope that Congress will liberally appropriate funds to finish the work so admirably commenced. The next step should be the establishment of a Government Medical School, to

train officers for the service, and have the professors appointed from the two services.

The Marine Hospital Service.

Dr. J. M. Woodworth, the supervising surgeon of this service, reports, under date of Nov. 1, the condition of the service for the year ending June 30, '72. From the report we learn that the total number of sick or disabled seamen who received hospital relief was 12,302, and that the average duration of treatment was 32 days each. There were 854 seamen who received medicinal treatment or were "out patients;" this brings the total to 13,156. The deaths were 521, or less than four per cent. Leaving out the expenses of erection and repair of buildings, and the cost of the service was $396,263.11, or an average of 97 cents per day—(last year it was $1.04.) The entire cost of the service was over $56,000 less than the previous year. At several of the hospitals, the salaries of medical officers was increased one half, and this, with the extra expense attending the epidemic of smallpox, prevented a greater diminution.

Dr. Woodworth recommends a thorough revision of the regulations of the service; a law for the benefit of seamen on revenue and army engineer vessels and those on lighthouse duty; a change in the regulations which admit foreigners to the hospitals, so as to secure proper compensation for their treatment; the erection at New York of a pavilion hospital, with capacity for 200 patients; one on Angel Island, for 150 beds, and one at Pittsburgh, for 30 beds. He condemns the hospital buildings at Alleghany City, Natchez, Ocracoke, New Orleans and San Francisco; recommends constructing all hospitals of wood and destroying them after ten or fifteen years, as being measures sanitary and economical, and that each hospital should have a permanent brick or stone building for heating and laundry. The Doctor also favors separate dwellings for the medical officers, in connection with the large hospitals. We have not been able to do more than give a synopsis of the report, which is very complete and does credit to the administration of the service.

MONTHLY REPORT OF DEATHS IN THE CITY OF SAN FRAN-

By C. M. BATES, M.D., Health Officer. *No. of Deaths corresponding*

CAUSE OF DEATH.	Total	AGES.																SEX	
		Under 1 year	1 to 2	2 to 5	5 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	Over 100	Unknown	Male	Female
I. ZYMOTIC.																			
Diphtheria	8	1	5	2	..	..	..	..	..	..	..	..	..	..	..	..	..	3	5
Croup	4	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1
Whooping Cough	10	7	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	3	7
Fever, Enteric or Typhoid	9	1	..	..	1	1	..	3	1	1	1	..	..	..	..	..	..	5	4
Cholera Infantum	7	6	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	2
Cerebro-spinal Meningitis	9	2	3	1	1	1	..	1	..	..	..	..	..	..	..	..	..	4	5
Other diseases of this class	14	1	2	3	1	..	..	3	1	..	2	..	1	..	..	..	..	8	6
II. CONSTITUTIONAL.																			
Rheumatism	2	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	2	..
Cancer	3	..	..	..	..	..	..	1	..	2	..	..	..	..	..	..	..	2	1
Cancer of Liver	3	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	1	2	1
Cancer of Uterus	3	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..	3
Cancer of Stomach	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..
III. TUBERCULAR.																			
Tabes Mesenterica	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Phthisis Pulmonalis	46	..	..	1	..	..	..	9	18	9	7	1	..	1	..	..	..	33	13
Hydrocephalus	3	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1
IV. LOCAL.																			
Congestion of Brain	7	..	..	..	..	..	1	2	..	2	1	..	1	..	..	..	..	3	4
Cerebritis	3	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1
Paralysis—general	3	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	2	1
Convulsions	10	7	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	7	3
Other diseases of this class	11	2	..	..	2	..	..	..	..	..	1	1	1	..	..	..	1	6	5
V. CIRCULATORY SYSTEM.																			
Aneurism	2	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	2	..
Aneurism of the Aorta	2	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	2	..
Dropsy	5	1	..	..	..	..	..	..	..	2	..	1	1	..	..	..	..	4	1
Heart Disease, undefined	5	..	..	..	..	..	..	..	1	2	..	2	..	..	..	..	..	3	2
Other diseases of this class	3	..	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..	2	1
VI. RESPIRATORY SYSTEM.																			
Laryngitis	2	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	1	1
Bronchitis—Acute	2	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	1	1
Congestion of the Lungs	5	4	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	2	3
Pneumonia	19	5	1	1	1	..	..	2	..	4	2	1	2	..	..	..	..	14	5
Hæmoptysis	4	..	..	..	..	..	..	..	3	1	..	..	..	..	..	..	..	4	..
Other diseases of this class	5	1	..	1	..	1	..	..	1	..	..	1	..	..	..	..	..	2	3
VII. DIGESTIVE SYSTEM.																			
Enteritis	8	5	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..	3	5
Peritonitis	3	1	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	2	1
Hepatitis	3	..	..	..	..	..	..	1	..	1	1	..	..	..	..	..	..	2	1
Other diseases of this class	7	1	..	..	..	..	..	2	4	..	..	..	..	..	..	..	..	3	4
VIII. URINARY SYSTEM.																			
Nephritis	3	..	..	..	..	..	..	..	2	..	1	..	..	..	..	..	..	3	..
Bright's Disease	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..
IX. LOCOMOTORY SYSTEM.																			
Coxalgia	2	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	2	..
X. DEVELOPMENTAL.—CHILDREN.																			
Premature Birth	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2
Cyanosis	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1
XI. WOMEN.—Diseases of	5	..	..	..	..	1	..	..	1	2	..	1	..	..	..	..	..	..	5
XII. OLD AGE	4	..	..	..	..	..	..	..	..	..	2	1	1	..	..	..	..	1	3
XIII. NUTRITION.																			
Atrophy	14	9	2	1	..	1	..	..	..	..	..	..	..	..	..	..	..	6	8
Inanition	9	6	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	8	1
XIV. ACCIDENTAL	12	..	..	..	..	2	1	3	1	1	2	2	..	..	..	..	..	10	2
XV. SUICIDE	4	..	..	..	1	..	1	1	..	..	1	..	..	..	..	..	..	2	2
XVI. SYPHILIS	3	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	1	2
XVII. NOT SPECIFIED OR ILL DEFINED	3	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	2	1
XVIII. UNKNOWN	21	4	..	1	..	..	1	3	6	4	2	..	..	..	..	..	..	17	4
XIX. DELIRIUM TREMENS	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..
TOTALS	320	77	20	21	9	8	5	37	50	39	31	12	8	1	..	..	2	107	81
XX. STILL BORN	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14	8
XXI. BIRTHS REPORTED	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	23	25

CISCO, CALIFORNIA, FOR THE MONTH OF NOVEMBER, 1872.

Month of 1866, 242; 1867, 217; 1868, 334; 1869, 270; 1870, 309; 1871, 300.

RACE.			WARD.																NATIVITIES.			
Caucasian	Mongolian	African	1st Ward	2d Ward	3d Ward	4th Ward	5th Ward	6th Ward	7th Ward	8th Ward	9th Ward	10th Ward	11th Ward	12th Ward	Public Institutions	Casualties	Suicides	F'r'gnCo'nur's	Atlantic U. S.	Pacific U. S.	Unascertained
8						2		1			1	1	2	1						8	
3		1						1				1	2							4	
10			1					1	1		2	1	4							10	
9				1		1			1		1	3		1	1			5	1	3	
7				1		1	1				1	1			2			1		6	
9				1	1						1	1	2	2	1				1	8	
14			1	2		1			1	1		1	1	3	3			6	7	6	
2															2			2			
3													2		1			2	1		
3										1	1				1			2			1
3										2			1					2	1		
1												1						1			
1											1									1	
40	5	1	1			4	2	4	2	3	2	6	5	2	15			39	6	1	
3												2		1						3	
7												1		1	5			5	2		
3									1				2						1	2	
2	1							1					1					2	1		
3		1		2		2				2		1	2	1						10	
9	1	1	1							1	1	2	1	1	5			5	2	3	1
2													1		1			2			
2					1										1				2		
5						1						1	1	1	1			4		1	
4		1								1			2		2			3	2		
3			1									1			1			1	1	1	
2											1				1			1		1	
2			1	1															1	1	
5				1				1		1	1	1						1		4	
18		1		2				1			1	2	3	5	5			7	3	9	
3	1		1	1		1									1			2	2		
5							1	1	1						2			2		3	
7		1				1			2			1	2	2				2		6	
3											1			1	1			2		1	
3				1									1		1			3			
7				1							1	3			2			5		2	
3							1						1		1				3		
1							1												1		
1	1														2			2			
3						1					1	1								3	
3				1								1			1					3	
5						1					1	1	2					2	2	1	
4				1					1						2			4			
14				1		1			2	1	1	2	2	2	2					14	
9						2				2	1		1		3			2		7	
12																12		5	5		2
4																	4	3	1		
1	2														3			3			
3									1				1	1				1		2	
5	16		1			13	1	3				2		1				14	2	5	
1											1							1			
286	27	7	8	17	2	31	5	16	13	16	21	38	42	26	69	12	4	144	43	129	4
22																					
48																					

Synoptical Report of the Condition and Operation of the Insane Asylum of the State of California, for the year ending October 1, 1872.

Resident Officers—G. A. Shurtleff, M.D., Medical Superintendent; I. S. Titus, M.D., Walter R. Langdon, M.D., Assistant Physicians.

Directors—Edward Moore, President; Donald McLennan, O. Harvey, E. E. Thrift, Henry S. Austin; P. V. Batte, Treasurer and Ex-officio Secretary.

	Males.	Females.	Total.
Number of Patients October 1, 1871	786	304	1090
Number admitted during the year ending Oct. 1, 1872.	359	147	506
	1145	451	1596
Discharged recovered	176	64	240
Discharged improved	16	14	30
Discharged unimproved	3		3
Died	144	44	188
Eloped	10	2	12
	349	124	473
Number remaining October 1, 1872	796	327	1123

RECEIPTS.

Balance, October 1, 1871	$ 13,432 48	
Received from Controller Warrants.	188,270 05	
Received Board and Clothing	7,064 09	
Received from State of Nevada, Board and Clothing.	1,569 13	
Received for Furniture	300 00	
Received from other sources	69 00	210,704 75
Disbursed as per Vouchers on file		207,097 61
Balance in Treasury, Sep. 30, 1872.		$ 3,607 14

INDEBTEDNESS.

Bills of Supplies	$ 8,267 13	
Material and Pay Roll for Improv's.	949 22	
Pay Roll of Employees	4,738 34	
	13,954 69	
Deduct Cash on hand	3,607 14	
Indebtedness, Sep. 30, 1872		$ 10,347 55

Number of Admissions, Recoveries, Deaths, etc., for 22 Years.

YEARS.	Admissions	Recoveries	Discharg'd uncured	Deaths	Escaped	No. resident at the close of each year.	Increase	Decrease	Whole number treated	Per cent. of recoveries to admissions	Per cent. of deaths on the number treated
1851	13	6	....	1	..	6	6	.	13	46.15	7.69
1852	124	50	....	10	..	62	56	..	130	40.32	7.69
1853	160	108	....	12	..	103	41	..	222	67.50	5.40
1854	202	150	....	21	..	134	31	..	305	74.00	6.89
1855	214	168	....	18	..	162	28	..	348	78.50	5.20
1856	210	126	....	23	..	172	10	..	382	60.00	6.02
1857	206	81	....	28	..	188	16	..	378	39.32	7.33
1858	244	112	...	32	..	273	85	.	432	45.90	7.41
1859	276	112	....	49	..	370	97	..	549	40.58	8.91
1860	248	123	....	54	10	417	47	..	618	49.59	8.73
1861	198	154	34	33	14	416	....	1	615	77 77	5.36
1862	301	127	14	65	12	499	83	..	717	42.19	9.06
1863	252	105	17	47	12	583	84	..	751	41.67	6.26
1864	219	101	25	82	12	581	...	2	802	46.12	10.22
1865	268	93	15	82	27	632	51	..	849	34 70	9.66
1866	279	131	13	62	12	693	61	..	911	46.95	6.81
1867	313	125	14	89	9	769	76	..	1006	40.00	8.80
1868	387	146	13	134	10	853	84	..	1156	37.73	11.59
1869	482	225	16	159	15	920	67	..	1335	46.68	11.91
1870	562	221	36	156	22	1047	127	..	1482	39.32	10.58
1871	523	245	36	176	23	1090	43	..	1570	46.84	11.21
1872	506	240	33	188	12	1123	33	..	1596	47.43	11.78
Totals	6187	2949	266	1521			1126	3			

Book Reviews.

HYSTEROLOGY—A TREATISE, DESCRIPTIVE AND CLINICAL OF THE DISEASES AND DISPLACEMENTS OF THE UTERUS. By EDWIN NESBIT CHAPMAN, M. A. M. D., pp. 504. New York, W. Wood & Co.; San Francisco, A. Roman & Co.

Of the many works which have appeared of late years on this subject, we think the above is probably the very worst. Without the merit of originality, it lacks order in its arrangement, wants conciseness of description, and is lamentably deficient in ordinary intelligence upon all subjects. The book is replete with *ipse dixits* that are repeated independent of either precedents or authority, the author's aim at self-productiveness having resulted in 500 pages of irredeemable crudeness, done up in a very inviting form of typography.

Its principal point of treatment, that of "scarifying the cervix," the author enunciates as a discovery of his own, but unfortunately "great minds do think alike," and Dr. Chapman has the misfortune of appropriating a treatment that had its birth at a time coëval with his own, (if he is half a century old), and to reduce the same operation to a scientific nicety, Dr. Gaillard Thomas invented years ago, a vacuum syringe, and a small lance pointed instrument, that may now be bought in any first-class instrument store. The author's description of the manner of using the speculum, conduct of the physician, etc., reads more like the quack advertisement of a nostrum vendor, than the grave studies of as intelligent a physician as Dr. Chapman is supposed to be, but in the absorption of a first authorship, the Doctor evidently forgets the dignity of his profession in so many respects, that we charitably assume it to be rather the result of confused ideas governed by inordinate self-esteem, than a deliberate design to insult the living or rob the dead, and we illustrate the antiquity of this conclusion, by the fact that he studiously omits the names of those gentlemen whose world-wide reputation would have given character to his book, while he magnanimously appropriates their ideas. And to as great a length does Dr. Chapman carry his vanity of self-productiveness, that in speaking of instruments even, he avoids mentioning the more important ones, for fear, evidently, he may be obliged to associate such names as Hewett, Simpson, Emmet, or Thomas with their invention. In his history of the speculum, he neglects to mention Sim's "Duck bill," although he certainly must know of it, and has in all probability used it in his "Clinique" at the hospital.

The author devotes a page to the annihilation of all our preconceived notions of treatment, and in a few lines contemptuously slurs over the labors of our profesional magnates, while we are accorded an interminably long rigmarole about his personal affairs, as if it was a matter of any importance to the profession whether his practice was large or small, or whether posterity will care a cent how long it took this great mind to cogitate the question, whether he would accept the chair of midwifery, in addition to that of materia medica and therapeutics!

The book is absolutely without merit except as an exposition of unconceivable egotism, and so behind the age is its theories and practice, that if the date, 1872, had not appeared on its title page, one might readily imagine it the production of a preceding century. C. T. D.

Vol. I. DECEMBER. No. 12

THE WESTERN LANCET.

A MONTHLY JOURNAL

DEVOTED TO

Medicine, Surgery and the Collateral Sciences.

EDITED BY

EUSTACE TRENOR, A. M., M. D.,

HEMAN P. BABCOCK, M. D.

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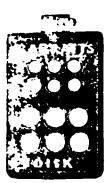

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The regular Course of Lectures of this Institution commences on the first Monday in June, and erminates on the 31st day of October. A preliminary course will also be given, commencing on he second Monday in January, and continuing up to the commencement of the regular term. During this course, two lectures will be given in the College building, from 10 A. M. to 12 M., on Mondays, Wednesdays and Fridays. On the alternate days, viz., Tuesdays, Thursdays and Saturdays, public clinics will be held in college from 10 A. M., to 12 M. Preliminary lectures and clinics free to all medical men and students.

During the entire year, the students will have an opportunity of visiting the various hospitals of the city, under circumstances which will enable them to observe medical and surgical treatment. The Faculty desire to call attention to the following local advantage.

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Fees and Regulations.

The aggregate Fees of the Professors for a full term	$130 00
The Matriculation Fee (this fee is paid but once)	5 00
The Graduation Fee	40 00
The Demonstrator's Ticket	10 00

REQUIREMENTS FOR GRADUATION.

1st. The candidate must be 21 years of age.

2nd. He must have attended two full Courses of Medical Lectures, one of which must have been delivered in this Institution.

3rd. He must have attended a Course of Practical Anatomy in the dissecting room.

4th. The candidate must have studied Medicine for three years (the terms of attending Lectures included), under the direction of a respectable medical practitioner.

5th. He must write a Medical Thesis, and submit the same to the Faculty two weeks prior to the commencement.

Graduates from other Medical Colleges, in good standing, are required to Matriculate only.

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Students can obtain good Board in the city, at prices varying from five to ten dollars per week Application for further information may be addressed to the Dean.

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R. BEVERLY COLE, M. D., Professor of Obstetrics, and Clinical Diseases of Women.
GEO. HEWSTON, M. D., Professor of Principles and Practice of Medicine.
M. W. FISH, M D., Professor of Physiology.
L. FALKENAU Professor of Chemistry.
C. T. DEANE, M. D., Professor of Diseases of Women and Children, and Clinical Obstetrics.
C. M. BATES M. D., Professor of Clinical Medicine.
A. A. O'NEIL, M. D., Professor of Anatomy.
W. T. BRADBURY, M. D., Professor of Materia Medica and Pharmacy.
W. F. SMITH, M. D., Professor of Opthalmogy and Otology.
W. H. JOHNSON, M. D., Adjunct to the Chair of Obstetrics and Clinical Diseases of Women.
CHAS. TOLAND. M. D., Prosector to the Chair of Surgery.
WM. H. JOHNSON, M. D., Curator of the Museum.

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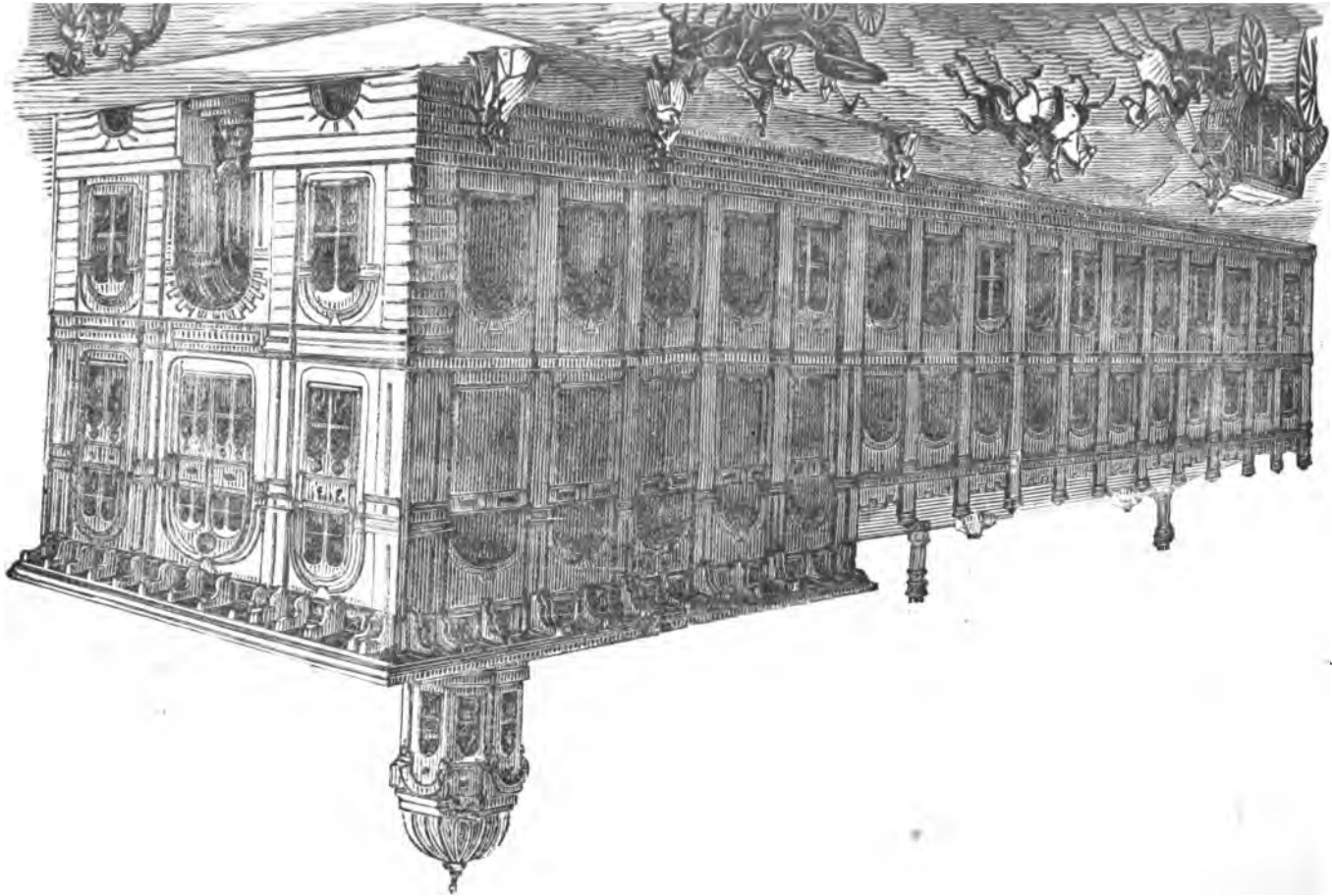
Office, No. 16 Geary Street, above Kearny.



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